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DEPARTMENT OF COMMERCE AND LABOR

BUREAU OF STANDARDS

S. W. STRATTON ❧ DIRECTOR

Weights and Measures

❧

FIFTH ANNUAL CONFERENCE

OF REPRESENTATIVES FROM VARIOUS STATES

HELD AT THE BUREAU OF STANDARDS

WASHINGTON, D. C., FEBRUARY 25 AND 26, 1910

GOVERNMENT PRINTING OFFICE

WASHINGTON ❧ ❧ ❧ 1911

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LIST OF DELEGATES WHO ATTENDED THE CONFERENCE.

W. F. CLUETT,
Chief Deputy Sealer,
Chicago, Ill.

C. R. DINEHART,
State Treasurer,
St. Paul, Minn.

L. A. FISCHER,
Chief of Weights and Measures Division, Bureau of Standards,
Washington, D. C.

WM. F. GOODWIN,
State Sealer of Weights and Measures,
Lincoln, R. I.

W. C. HASKELL,
Sealer of Weights and Measures,
Washington, D. C.

P. F. HAZEN,
St. Johnsbury, Vt.

J. R. KEMMERER,
City Sealer,
Hartford, Conn.

JOHN KJELLANDER,
City Sealer,
Chicago, Ill.

A. E. SLEEPER,
State Treasurer,
Lansing, Mich.

THEO. S. MCCOY,
Private Secretary to the Secretary of State,
Springfield, Ill.

CHARLES C. NEALE,
Seale Inspector for the State Railroad and Warehouse Commission,
Minneapolis, Minn.

D. C. PALMER,
State Commissioner of Weights and Measures,
Boston, Mass.

L. S. PENNELL,
City Sealer,
Portland, Me.

P. P. QUIST,
State Weighmaster,
Minneapolis, Minn.

F. REICHMANN,
State Superintendent of Weights and Measures.
Albany, N. Y.

M. E. RICE,
Deputy State Sealer,
Lawrence, Kans.

E. O. SATHER,
City Sealer,
Minneapolis, Minn.

L. S. SMITH,
State Sealer of Weights and Measures,
Madison, Wis.

S. W. STRATTON,
Director, Bureau of Standards,
Washington, D. C.

B. F. THOMAS,
State Sealer of Weights and Measures, Ohio State University,
Columbus, Ohio.

J. SUTTON WALL,
Department of Internal Affairs,
Harrisburg, Pa.

J. H. WALLIS,
State Sealer of Weights and Measures,
Boise, Idaho.

A. N. YODER,
Secretary of State,
Helena, Mont.

OFFICERS AND COMMITTEES.

OFFICERS.

President, Dr. S. W. Stratton, Director of the Bureau of Standards, Washington, D. C.

Vice President, Mr. D. C. Palmer, Commissioner of Weights and Measures, Boston, Mass.

Secretary, Mr. L. A. Fischer, Chief of Division of Weights and Measures, Bureau of Standards, Washington, D. C.

COMMITTEES.

Executive committee:

The above officers, and—

Mr. John Kjellander, of Chicago, Ill.

Mr. W. C. Haskell, of Washington, D. C.

Prof. B. F. Thomas,[1] of Columbus, Ohio.

Mr. P. P. Quist, of Minneapolis, Minn.

Committee to prepare a net-weight package bill and arrange for its presentation to Congress:

Mr. P. P. Quist, of Minneapolis, Minn.

Mr. D. C. Palmer, of Boston, Mass.

Mr. John Kjellander, of Chicago, Ill.

Dr. F. Reichmann, of Albany, N. Y.

Mr. A. N. Yoder, of Helena, Mont.

Committee on the organization of a full weight and measure league (appointed at the fourth conference, December, 1908):

Dr. F. Reichmann, of Albany, N. Y.

Prof. B. F. Thomas, of Columbus, Ohio.

Mr. L. A. Fischer, of Washington, D. C.

Mr. E. E. Brown, of Lawrence, Kans.

Prof. L. G. Weld, of Iowa City, Iowa.

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[1] Subsequently resigned on account of new law putting the administration of weights and measures law under the State dairy and food commissioner.

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REPORT OF THE FIFTH ANNUAL CONFERENCE ON WEIGHTS AND MEASURES OF THE UNITED STATES

HELD AT THE BUREAU OF STANDARDS
WASHINGTON, D. C., FEBRUARY 25 AND 26, 1910

FIRST SESSION (MORNING OF FRIDAY, FEBRUARY 25, 1910).

The conference assembled at 10 o'clock a. m., in the lecture room of the Bureau of Standards, the chairman, Dr. S. W. Stratton, Director of the Bureau of Standards, presiding.

The CHAIRMAN. Those of you who have met with us from year to to year know that the bureau, whenever it takes up a subject of vital interest to the public, tries to select a representative committee of the people pursuing those interests or occupations. Through such committees the bureau reaches the public and receives most valuable information. This committee, representing the State officials of weights and measures, was the first that the bureau brought together. The question of weights and measures as it applies to the ordinary affairs of life, is perhaps the most important one with which the bureau has to deal. Our first conference of those officials consisted of eight or ten representatives, the next year a few more, followed by an increase the next year, and now, in the fifth conference, we have double the number we had last year.

Now, it is through this body that the bureau reaches the public, ascertains what it needs in respect to weights and measures, and what the conditions are throughout the States. The benefit is mutual. We receive through the committee the benefits to be derived from a close contact with the public, and on the other hand we hope to succeed in taking to the people the advantages which the bureau offers in a way that we could not do without such an organization.

The last year or two we have had with us at the opening the Secretary of Commerce and Labor, the Bureau of Standards being one of the bureaus of that department. Since you were here last we have a new chief, and, I am very glad to say, one who takes a very great interest in the affairs of the bureau. He is with us this morning, and I take great pleasure in introducing to you the Hon. Charles Nagel, Secretary of Commerce and Labor.

Secretary NAGEL. Dr. Stratton and gentlemen, I regard it as a very great privilege to be asked to meet you this morning. As you no doubt suspect, up to a year ago my information about this bureau was probably that of most American citizens. In other words, I had practically no impression as to the purpose and aim of the work done out here; in fact, I am not sure that I knew of the existence of the Bureau of Standards. I am now supposed to supervise the work. I rely upon the privilege of most secretaries to know a little about everything and not much about anything; and I am doubly glad to attest my entire confidence in Dr. Stratton, believing and feeling assured that everything goes well as long as he is here. I have perhaps spoken about this bureau more frequently than he suspects, because I have been out here and admired his work. Generally, it has given me great pleasure to say that one standard for which this bureau stands I have been able to appreciate, and perhaps only one; and that is the standard of the men whom Dr. Stratton has been able to get about him. The force of men out here has impressed me, and of that perhaps I am able to judge as well as others. As I see it, the standard of American manhood is at the bottom of the whole fight.

We hear a great deal about conservation. I am in entire sympathy with it, but I believe it ought to be extended beyond coal and timber and like things, in order to embrace the entire interests of the country, and above all the human force upon which we will ultimately have to rely.

Of course, when it comes to scientific work with which the bureau is charged, I need not say that I suffer from the limitations which obtain in the case of most American citizens. I can admire the results; I may be interested in the methods; I love to see the tools; I can appreciate how neatly and beautifully they are kept, and I can ask questions just as intelligently as my boy of 10 years would ask, if he had the same privilege to see these things. For that we have to rely upon you.

I did not even know that the Bureau of Standards was in communication with the representatives of the different States until Dr. Stratton told me the other day, but when he did tell me that, I think I know enough about the needs of this country to appreciate at once the tremendous significance of that relation between this Federal bureau and the representatives of the several States. In many ways the Federal Government is now called upon to establish standards of one kind or another. Even in the large field of general legislation, in which the States have found it so difficult to arrive at some point of unity of action, the Federal Government has been called upon to adopt model legislation, circumscribed in its application but general in its illustration, so that the States may have an opportunity, look-

ing to that standard, that model, to come to some common agreement, which may result in a common enforcement of the law.

Of course we have a different condition to deal with here, because in this instance the Federal Government is not acting as a volunteer, but is proceeding under a power which the Constitution has vested in the Government—that is, the power to establish standards of weights and measures. That power means everything if the Government choose to exercise it. The significance of that power was recognized, of course, in the beginning, or it would not have been inserted in that solemn instrument. Perhaps even those wise men did not suspect the real need for the exercise of that power with which we are confronted to-day. Because you know better than anyone else, although many of us, mere consumers, are beginning to suspect, how essential the use of this power has become, and how the general public is at the mercy of every species of fraud, if you please, unless that public is protected under this power by intelligent cooperation between the Federal Government and you gentlemen representing the States. Talk about cost of living! I have no doubt there are many explanations for it. Some of them may be charged to pure waste; others may be charged to the greater abundance of gold; still others to combinations; but I believe—and I imagine many of you believe—that short measure has very much to do with the cost of living to-day. You know a good doctor does not need many symptoms to diagnose a case. If he has a good case, he knows what his verdict is; and when I find in buying a bottle of wine that much of it is in the bottom of the bottle in the shape of glass, I know just exactly what people are capable of doing. When I know that large concerns have to change their description from pint to half-bottle, I know why they do it. One has a distinct measure, and the other is left to the imagination. It is so throughout the trade; you know all about it and I need not tell you. It is simply an illustration of how necessary the intelligent and vigilant use of this power is to the protection of the whole public.

Now, that power will be used by some one, and the question is, In whom shall the authority ultimately be vested? Here is just as nice an illustration of the need for cooperation between the Federal Government and State authority as we can possibly find. That need is pressing upon our attention from day to day in every possible field. Wherever you look, in relation to the activity of the Federal Government, you find that there is need for an understanding between the two branches of this dual system of government, and you can appreciate how much will ultimately depend upon intelligent, patient, tolerant cooperation between the two authorities.

Take, for instance, the census. We are now engaged in taking the census, or are about to start upon it. In some States we have to

appoint every single official who has anything to do with the census. We have to create this force from the bottom up. In other States the whole machinery is established, and the Federal Government, recognizing that it could not by any amount of trouble or pains supply as good machinery as the State has, instead of making the attempt, simply adopts the State machinery bodily and asks it to do its work. Massachusetts has such a system. In the whole State of Massachusetts we have appointed just one supervisor and told him to go ahead according to the accredited system of his State. In other States we find absolutely no preparation, and every 10 years we have to build up as best we can a system of relatively inexperienced men.

It is so in other fields. Take the fisheries. We are told to protect the fisheries of this country. We boast of doing extensive work along the coast lines and in the rivers, but, as I said at a meeting in one of the States the other day, you must cooperate. So far you are really embarrassing us, because the more fish we supply and the more lobsters we supply the more prompt are you to resort to all kinds of illegitimate use of nets and traps and everything else to destroy the result of our work. That is not cooperation; and if we are to be met by that kind of work on your part, you will necessarily retard and discourage our work correspondingly.

Now let us take our immediate work, weights and measures—the protection of the public against the fraud that undoubtedly exists. Not only must there be cooperation between the two, but if the States fail in sustaining the standards which the Federal Government establishes under its constitutional power, then I predict that just as certain as there is a Federal Government, it will supply the agencies and take charge of the whole business. It has the power, without any question. We hear a great deal now about the encroachment of Federal power upon State authority. I am not alarmed about that, because I believe that the States are waking up to the situation. But it would not be an encroachment. If the Federal Government has the power to fix the standards, it has the power to say what shall happen if those standards are not obeyed; and that means the power to make laws and to send out agents, who will have the authority and the right to enforce those standards and those laws with respect to every citizen of the United States. That is what we may come to.

How would it be brought about? There is no thought of it now. There will not be any thought of it provided the States, by their own machinery and their own officials, see to it that the general public is protected against fraud upon the standards which the Federal Government has established. That is the way it will have to be done. It is a beautiful case of cooperation. You could not find a better illustration, and you could not find a better illustration

of the dangers of the gradual growth, legitimately enough, of Federal authority at the expense of State authority, if the State fails to do what lies within its power.

I am glad to have been here to meet you, and I am particularly grateful to have had Dr. Stratton bring me face to face with an instance which illustrates the present needs of political cooperation under a dual system of government, in my judgment, as happily as any case possibly could.

Now, gentlemen, I have been asked to speak to the President, and I shall speak to him to-day, and endeavor to make an appointment to-morrow so that you may have the opportunity to meet him personally. You represent so large a proportion of the States, and you represent a matter which is of such profound concern to the entire country, that I am sure it will be regarded as a pleasure on his part to meet you. If I am successful in making that appointment, I shall advise Dr. Stratton accordingly. I thank you.

Mr. REICHMANN. Mr. Chairman, I am sure that this body would like to have the Secretary's speech in printed form, and I therefore move that 5,000 copies be printed by to-morrow morning at 10 o'clock, if we can get them. I think it is a comparatively simple matter to get 5,000 copies by to-morrow morning, and I think it is highly important that every delegate here take home some copies of it and distribute them to the newspapers, or to the members of the legislature, or to such people as he desires to give them, so as to bring the matter before the public, because statements of that kind, coming from the Secretary of Commerce and Labor, will have a great deal more authority than statements coming from almost anyone else. If the Bureau of Standards can not get it printed officially, I for one would be very pleased to help pay for the expense of printing, and I am sure most of those here would do likewise.

The CHAIRMAN. I do not believe we could get it done through the routine channels by to-morrow morning.

Mr. GOODWIN. Mr. Chairman, I move to amend that motion to provide that Dr. Reichmann be delegated as a committee of one to see to the printing of this document, which we all, I believe, want.

The motion was seconded, and, after some further discussion, the motion as amended was carried.

The secretary then called the roll, the following-named members being present:

Mr. KEMMERER, Connecticut.
Mr. HASKELL, District of Columbia.
Mr. WALLIS,[1] Idaho.

[1] Mr. Wallis did not arrive in time to take part in the conference. See telegram, p. 106.

Mr. KJELLANDER, Illinois.
Mr. CLUETT, Illinois.
Mr. MCCOY, Illinois.
Mr. RICE, Kansas.
Mr. PENNELL, Maine.
Mr. PALMER, Massachusetts.
Mr. SLEEPER, Michigan.
Mr. DINEHART, Minnesota.
Mr. QUIST, Minnesota.
Mr. NEALE, Minnesota.
Mr. SATHER, Minnesota.
Mr. YODER, Montana.
Mr. REICHMANN, New York.
Mr. THOMAS, Ohio.
Mr. WALL, Pennsylvania.
Mr. GOODWIN, Rhode Island.
Mr. HAZEN, Vermont.
Mr. SMITH, Wisconsin.

The SECRETARY. Mr. Chairman, I would like to make a report on the changes in legislation that have occurred since last year, so far as we have been able to obtain them.

Illinois has passed a law giving the cities permission to pass ordinances requiring certain commodities to be sold by weight.

In Delaware the State chemist has been made State sealer of weights and measures. This office was formerly under the secretary of state. Also, milk must be sold by the standard gallon and pint. Half of certain fines for short weights and measures goes to the informer.

Tennessee has passed a law providing a heavy penalty for marking or representing packages to contain more than they actually do contain. I think they allow a variation of 1 per cent.

Ohio has passed no laws, but sale by weight instead of measure is being agitated.

That, I think, represents about all the new legislation that has been passed in the last year, but perhaps there is some that the delegates can tell us about.

Mr. KJELLANDER. Mr. Chairman, I did not hear the report from the State of Illinois. There has been a law passed there, or an enabling act, giving the different cities and villages throughout the State the right to sell everything by weight in place of measure; and in the city of Chicago, in accordance with that law, we have before the city council to-day an ordinance to the effect that all commodities, with the exception of cereals, must be sold by weight in place of measure. I hope that inside of a month or so that ordinance will be passed, which will practically abolish all capacity

measures. Of course the reason that we did not in that ordinance regulate the sale of cereals by weight was that we would come in contact with the serious question of original packages. I hope that that question will be discussed here to-day, and that some action will be taken on that proposition.

Mr. GOODWIN. Mr. Chairman, I would like to make a report on the change of the law in Rhode Island. Formerly we had the right to sell coal by the bushel; now the statute has been changed and coal must be weighed, and an amount less than 100 pounds sold in any container must be marked with the kind and the number of pounds of coal it contains. I think that is a very important thing for us to report on here to-day, for the reason that it has changed our organic law. I think there is no other change except in the methods of handling our sealing business.

The CHAIRMAN. Are there any further reports on changes in legislation or new legislation?

Mr. PALMER. Mr. Chairman, do I understand that you are asking for a general report now? I thought it was customary at these meetings to go right down the list of delegates and let each man make his report in order. Is that the intention?

The CHAIRMAN. That is part of the program. The executive committee has put in my hands a tentative program, and I am following that. I suppose that this report of legislation that has come to the bureau was simply included by Mr. Fischer in his report as secretary, and that additions or corrections will be made later in the reports of delegates. I think it is rather important that this legislation should be called to the attention of the delegates. However, I think in most cases that will come in the regular reports of the State officials.

The SECRETARY. Of course these reports that we have are necessarily incomplete. They are merely a few things that have been reported to us or have been discovered by our inspectors.

The CHAIRMAN. The next in order are the reports of committees. I will ask the secretary to report and to name the standing committees.

The SECRETARY. At the meeting yesterday of the executive committee, it agreed on a program, which perhaps I had better read to you, and is as follows: "Address by the Secretary of Commerce and Labor; the roll call; report of the secretary (which I now make); reports of committees; reports of delegates; a paper by Dr. Reichmann; a discussion of bills before Congress and city ordinances; and new business."

The executive committee will present for discussion a draft of a bill which is to be submitted to Congress and is entitled "An act to prevent the manufacture or use of dishonest or fraudulent weighing or measuring appliances in commercial transactions." We also discussed a bill, which has already been introduced in the House by

Mr. Mann, of Illinois, to amend the pure food act so as to require that the net weight of the contents of all containers shall be plainly marked on the outside of the package in terms of net weight, measure, or numerical count.

The only other committee we have, Mr. Chairman, from which we can get a report is the one of which Dr. Reichmann is chairman. It was a committee appointed in compliance with a resolution adopted last year to appoint a committee to form a full weight and measure association.

The CHAIRMAN. Dr. Reichmann, the report of your committee is now in order.

Mr. REICHMANN. I will give that to the secretary to read.

The secretary read the report, which is as follows:

"The committee appointed to consider the formation of a national full weight and measure association respectfully reports that in order to have such an association, which the committee deems most desirable, it is first necessary to arouse sufficient public sentiment and to obtain sufficient funds in order to accomplish this purpose. The committee has been working along these lines and wishes to report progress and desires an extension of time before making its final report." Signed by Messrs. Reichmann, Thomas, Weld, Brown, and Fischer and dated February 25, 1910.

Mr. PALMER. I move that the report in part of the committee be accepted and that the committee be given further time.

The motion was seconded and carried.

The CHAIRMAN. The next thing on the program is the reports of the delegates.

The SECRETARY. Mr. Chairman, before you go any further, I would like to propose a correction to the program. We neglected to provide for the election of officers. I make a motion that the program be amended so that the election of officers will take place just before we take up new business.

The motion was seconded and carried.

The CHAIRMAN. We ought to have a perfected organization. This is a matter on the program, and the election of officers ought to be provided for in some sort of by-laws.

Mr. PALMER. Do we not have a set of by-laws? If not, I move that a committee be appointed by the chair to prepare a proper constitution and by-laws, and report at the meeting to-morrow morning.

Mr. THOMAS. My recollection is very clear that our present organization was effected following the action of a committee appointed for some such purpose as this. I can not say positively that that committee was the one instructed to prepare such a constitution and

by-laws. I was a member of that committee and think such a thing was done.

The SECRETARY. Mr. Thomas is right. There was an organization formed at the first meeting and the record of that is in the proceedings of the first meeting. It did not go into details, but provided for an executive committee, a president, a secretary, and was amended later to include a vice president among the officers. We can get a copy of that and turn it over to the new committee to amplify it if that is the intention.

The motion was seconded, and there being no further remarks, it was put and carried.

The CHAIRMAN. If there are no further matters to be considered at this time, we will now proceed with the reports of delegates. The first State, taken alphabetically, is Connecticut, which is represented by Mr. J. R. Kemmerer, city sealer of Hartford.

Mr. KEMMERER. Mr. Chairman and gentlemen, it gives me great pleasure to be here on behalf of the State of Connecticut. I am sorry that we have not been able to get a delegate to this convention heretofore. While there are a number of men who might possibly represent the State of Connecticut to better advantage than I, it is a pleasure to me that I have the honor to come here as a representative of that State.

You are all probably familiar with the laws in the State of Connecticut. There might be a number of changes made which would be of benefit to the State. I have been sent here to listen and learn of these things, so that the State of Connecticut may become benefited thereby. It is not necessary for the benefit of the Bureau of Standards to say what is being done in the State of Connecticut, as the bureau has had a representative making thorough investigations concerning matters there.

One or two new bills have been passed by our legislature which, I think, will benefit the State materially. A bill was introduced by our county treasurer, Mr. Marcus Holcombe, at the last session of the legislature, giving him, or the county sealers, or the acting county sealers power to delegate their power to some of the local sealers of weights and measures. This is a step in the right direction from the former law, under which no local sealer of weights and measures has had power to go to the State for verification of his working paraphernalia except a county sealer. In New Haven County the sealer of weights and measures of the city of New Haven has had this power for some time. How he got it I do not know. It may be that our State paraphernalia is not in as good shape and might not be as accurate as it should be, yet it is going to give these sealers the satisfaction of knowing that their working outfits are as near correct as those of the State.

Another bill which was introduced in our last legislature and passed, provides that every print of butter shall be plainly marked with its net weight. It has occasioned considerable consternation throughout the State, and Mr. Potter, State dairy commissioner, has issued his proclamation that on and after April 1 of the present year the law will be enforced. We have had considerable controversy over it, but it is a law which should be carried out, for I believe that on butter alone the States are losing more money yearly, with one exception, and that is milk sold in bottles, than on almost any other commodity.

A new lease of life has taken place in my own State. As president of the State Sealers' Association I tried hard for one or two years to get an association together, and we got some 12 or 14 men together in Hartford about two years ago and formed a State sealers' association. In the morning it was easy to interest them, but when noon hour was over it was hard to get them together again. I have upon my own responsibility gone around the State a great deal and have been the means of infusing new life into this matter. Since last year the city of New London has awakened from its slumbers and taken up the matter and is presenting it to the city council. I was invited there to speak before the councilmen and business men. If the proposed laws are passed, New London will be placed on a par with other cities in these matters. Other towns and cities that have taken the matter up during the last year are Manchester, Putnam, Winsted, Thomaston, Ellington, Hartland, and New Milford. Some of these towns have had sealers of weights and measures in name only; but with new life and new blood, they have again started out. Next year we shall see quite a big change in the sealing of weights and measures in Connecticut.

The first year I went into office, acting upon the advice and suggestion of Mr. Palmer, of Massachusetts, I took up the matter of requiring the sale of such commodities as beans, peas, chestnuts, walnuts, cranberries, and similar articles to be by dry measure instead of liquid. It has practically done away with the liquid measure in the sale of these commodities.

In my own city we have had new ordinances introduced in regard to the sale of ice, requiring the carrying of scales on all teams and the weighing of the ice when requested. On January 24 of this year an ordinance was introduced which seems to me to be one of the broadest and most sweeping ordinances I have ever seen. It reads as follows:

SECTION 1. The sealer of weights and measures may, at such reasonable times as he shall see fit, intercept in the process of delivery from the seller to the buyer goods sold by weight or measure, or in cases where goods are exposed for sale in packages or parcels represented as being of a certain weight or

measure, take up and weigh or measure such goods, and it shall be his duty to report to the prosecuting attorney any instances where the goods are sold or exposed for sale as being of greater weight, measure, or quantity than such goods in fact weigh or measure.

SEC. 2. It shall be lawful for such sealer of weights and measures to enter any store, house, building, yard, or other inclosure in this city where goods are sold by weight or measure or offered for sale in packages or parcels represented to be a certain weight or measure for the purpose specified in section 1 hereof.

This ordinance has had its effect upon the wholesale man. I have had wholesale dealers of all kinds visit my office in regard to this matter, and especially the flour dealers, who put up flour in bags weighing from 25 down to 12½ pounds. The bags are marked with the net weight, and in the city of Hartford I found flour that averaged as much as 14 ounces short from the weight stated. I have taken the matter up with the mills. The butter men have also been in to see me, and I am sorry that when these laws were put before the people and passed by the common council a milk-bottle law was not also passed. This matter is entirely in the hands of the board of health. It is one of the most common evils that confront the American people to-day; not only from the point of shortage, but as a disease breeder, for the bottles go into all sorts of homes and all sorts of places. These are the conditions that exist not only in Hartford, but in other cities throughout the United States. Connecticut has been for a number of years the dumping ground for New York, Massachusetts, Vermont, New Hampshire, and the surrounding States. We endeavored to get the different glass blowers together in my city, and we had four or five men present who claimed that it was utterly impossible to make a standard milk bottle. A short time after that a company came into our city with a bottle that was standard, and they are, in the majority, perfect. If one company can make a perfect bottle, why can not others? In Chicago, I understand, the so-called quart milk bottle must hold a quart, and the so-called pint milk bottle must hold a pint, it having been so decided by the supreme court.

If the laws on our statute books, with a few changes, were properly enforced, I think conditions would probably be a great deal better than they are to-day. Who is going to enforce them? That is the question. Until we find the proper officer to enforce the laws, conditions will be as bad as ever, even though the local sealers throughout the State give their very best services.

Outside of Litchfield County I do not believe there is a complete set of working apparatus in the possession of a county treasurer. In our county, Hartford, we have a set of liquid measures, a set of dry measures, a yard stick, and a troy pound. I have obtained a set of weights from 1 ounce up to 50 pounds. I have a Fairbanks'

standard balance and a set of weights from 1 ounce to 50 pounds. The State has tested these for me, so that I have something to work upon. Only a short time ago this question of weights and measures was discussed in our daily papers, and an old ex-State sealer and county sealer, the only one we have ever had, said that if the accuracy of the weights of our local sealers of weights and measures were questioned he failed to see where I could satisfy the people of Hartford that these weights were correct. These are some of the conditions existing in Connecticut.

I believe a law should be passed, and it should emanate from the Bureau of Standards, requiring the different States in the Union to comply with some fundamental Government laws in regard to weights and measures. I do not think the Bureau of Standards can give this matter too much recognition throughout the United States, or make it too public. I believe that if requests for cooperation, coming from the Bureau of Standards on such measures as it may introduce into Congress, were presented to the governors of the States, when they meet here once a year upon invitation, they would do what they could to bring before the public one of the widest and broadest questions that can be brought before the American public to-day, and that is the sealing of weights and measures.

Mr. REICHMANN. I would like to ask Mr. Kemmerer a question. There was a bill before the last Legislature of Connecticut proposing the establishment of a State department of weights and measures, and is right in line with the work that the secretary gave us. I would like to ask whether the bill was defeated. It seemed to be a very good measure and I spoke in favor of it.

Mr. KEMMERER. In answer to Dr. Reichmann I would like to say that the last bill presented to the Legislature of Connecticut was a bill that I had nothing to do with and in which I was not interested. I did not approve of the bill. It looked to me as if the bill was being presented to make a position for a certain man who had none. I do not believe that any State should put a bill before its legislature unless the State will be benefited by it. I say this not that I desired to take the position of State sealer of Connecticut—if I am permitted to take care of Hartford I will be satisfied—but when the position of State sealer is created in any State I hope the office will seek the man and not the man the office.

The CHAIRMAN. Before proceeding I should state that we have just had a message from Secretary Nagel saying that President Taft will be pleased to meet the members of this conference to-morrow at 12.30 o'clock.

The next report is that of Mr. W. C. Haskell, who represents the District of Columbia. We are always glad to hear from the District of Columbia.

Mr. HASKELL. Mr. Chairman and gentlemen, I have not prepared any statement, but I am pleased to say that the District of Columbia is provided with efficient laws to protect the public against sales by short weights and measures. We have our regular routes and cover certain territory in the District each day, so that we are able in the course of six months to entirely cover the city in the inspection of scales, weights, and measures. The records of our office are carefully and systematically kept, and I might say at this time that I shall be pleased to meet any of the gentlemen here and explain our methods. The office is in the District Building at the corner of Fourteenth Street and Pennsylvania Avenue.

The office could profitably use more assistants, but with the two it has at the present time and equipment in the way of conveyances, etc., we are doing much toward protecting the public against short weight and measure sales. The benefit to the consumer is, of course, difficult to estimate—that is, the amount in dollars—but when I state that hundreds of thousands of dollars are saved each year I am not overestimating. Regular inspection of scales, weights, and measures and the exposure and prosecution of persons violating the weights and measures law are of great benefit to the public. The dealers should be educated and forced, if necessary, to a realization that they must give the consumer what the law requires and that for which he pays.

Mr. PALMER. For the benefit of others and myself I would like to inquire as to just what has been done with regard to the sale of bread in the District of Columbia; I would like very much to hear Mr. Haskell report on it.

The CHAIRMAN. I am glad that Mr. Palmer brought this out, as we should like to know something of what has been going on in the different States. It is one of the objects of the meeting.

Mr. HASKELL. The bread law of the District of Columbia had been in force for more than 100 years in Georgetown, which is now a part of Washington, and for more than 50 years in Washington proper. It requires that a loaf of bread shall weigh a pound or multiples thereof. We took a case of short-weight bread into the court, and it was finally decided that the organic act, so-called, of 1878 repealed the bread law. Consequently, since that time we have been trying to perfect a law that will make the standard loaf of bread weigh 1 pound. The law remained in force so long that the people expected to receive a pound for a loaf, just the same as they expect to receive 2,240 pounds for a ton of coal. The bakers have taken the position that they do not need any law in the District for the sale of bread; that competition will regulate its sale and weight. I think it would be proper for me to say, Mr. Chairman, that the president of the National Bakers' Association is a resident and baker of the District

of Columbia and that his influence in opposing any regulation governing the weight of bread will probably result in opposition on the part of the Bakers' Association, in different sections of the country, to the enactment of any laws tending to regulate this matter.

We are of the opinion that there should be a standard weight, and there is no good reason why the people should not receive a pound of bread for a loaf. If the bakers, as they claim, are unable to sell 16 ounces of bread for the usual price of 5 cents, then let them increase the price; but to leave the matter open or in the condition that it is now, so that a baker can put whatever weight he pleases into a loaf of bread, I think would be a long step backward. The usual weight of a loaf now is 14 ounces, but we find a great deal of bread that weighs 13, 12, and as low as 11 ounces. The consequence is that the consumer, instead of receiving for 5 cents what belongs to him, receives 20 or 25 per cent less. To further illustrate the importance of this matter, the amount of bread baked in the District of Columbia is now about 200,000 loaves daily. The housewives have largely dropped the habit of baking their own bread, depending upon the bakers for their supply. A shortage in weight of 1 ounce in a loaf of bread means the loss of 12,500 loaves each day, and 2 ounces, the usual amount of shortage since the law was declared invalid, means a loss of 25,000 loaves, or enough to give one-fifteenth of the population of the city of Washington a full loaf (16 ounces) of bread a day. This gain is going into the pockets of the bakers. Figures which I have in my office show how much this amounts to in addition to a fair profit. The excess gain runs up into hundreds of dollars per day.

Another condition in the District of Columbia, according to information which is considered reliable, is that 183,000 of the 200,000 loaves baked every day are baked by seven bakers, while the remaining 17,000 loaves are baked by 75 or 100 small bakers. In other words, the seven bakers in the District control the output, and while they claim that they are not in a trust, they do not attempt to deny that they have their meetings regularly and talk these matters over and decide on what they shall charge for their bread. The consequence is that the people of the District of Columbia are in the hands of the bakers—a trust or whatever you may please to call it.

We are informed that the matter is being taken up thoroughly by different cities throughout the country. Chicago has a bread law which we have used as the foundation for a regulation which is now before the District Commissioners, requiring that bread shall be sold by weight, and establishing a standard of 16 ounces for a loaf. The Chicago law, I understand, has been carried through the State courts and has been sustained, so that the position taken by the bakers here that it is unconstitutional to demand a standard has been adjudicated

to the contrary. In fact, our corporation counsel informs us that this matter has been decided by the Supreme Court of the United States—that it is not unconstitutional to require that the weight of a loaf of bread shall be a certain amount—and it is safe to say that there is no valid reason why the bakers can not and should not give the people a standard weight for a loaf of bread, so that they may know what they are receiving and paying for. It is a question that has taken a great deal of our time and has been considered in all its phases, and we can not arrive at any other conclusion than that it is proper and just in the interests of the public that a loaf of bread should be of a certain standard weight.

The CHAIRMAN. Of course, there is this phase to that question: We can not fix both variables. If we fix the weight, then the price must necessarily be flexible. At least we can not do this until we reach a much more advanced stage of civilization. At the same time the public is better enabled to tell just what competition is going on and what it is paying for if the weight is a fixed quantity than if the price is, because it knows what the price is, but scales are not always at hand.

Mr. HASKELL. I might say that the argument is made by the Bakers' Association that it is impossible to bake an exact pound loaf of bread. Of course, that is an argument that we look upon as being made for their own interests. I know personally that it was done for 12 years; that they have given the people of Washington a loaf of bread that weighed 16 ounces. Of course, they had to put into the manufacture of that bread 17 or 18 ounces of dough, but there was no trouble about that. We inspected bread in large quantities regularly, and, when the bakers were not expecting us, at their places of business. It was seldom that we found the bread varying more than one-eighth to one-sixteenth of an ounce in weight.

Another argument that the bakers make against a standard is that bread will shrink in weight. We are informed that bread properly baked will not vary one-sixteenth of an ounce in weight in 12 hours, and very little more in 24 hours, so that there is no valid foundation for the argument that they can not bake 16 ounces of bread to the loaf. It is possible that the weight of a loaf of bread might vary one-sixteenth of an ounce, or thereabouts, but any official would take that into consideration. If the intention were not to defraud, I would look at it in that way. So I can not see, from all our investigations up to date, any reason why the baker should not give 16 ounces of bread to the loaf. They also claim that the price of flour has increased, so that they can not afford to give 16 ounces for 5 cents. If they can not do this, then let them increase the price, but not reduce the weight. If you go into a store for a dozen of eggs you do not expect the merchant to give you 10 or 11 eggs for a dozen because

the purchase price has advanced. So with any other commodity. If you open the door for one commodity to be sold in a less amount because of an advance in the cost of the constructive materials, there is no knowing where you are going to stop nor how wide open you leave the door for the perpetration of fraud on the public.

The CHAIRMAN. The next State having representatives present is Illinois. We will now hear from Mr. T. S. McCoy, secretary to the secretary of state.

Mr. MCCOY. Mr. Chairman and gentlemen, in Illinois the secretary of state is ex officio State sealer of weights and measures. His duty is to try and prove, by the standards in his possession, all weights and measures, scales, and beams which may belong to any county, and be sent or brought to him for that purpose by the county sealer; and shall seal such, when found to be accurate, by stamping on them the letter "I," with a seal which he shall have and keep for that purpose.

County sealers are required to try and prove all weights and measures, scales and beams when requested so to do.

Power is given to cities and villages to inspect weights and measures.

The coal mines of the State are required to have correct scales to weigh all coal mined. The bulk of the work of the secretary of state as ex officio State sealer of weights and measures is the trying of weights for the coal mines.

The legislature of 1909 passed the following law:

That the city council in cities, and the president and board of trustees in villages and incorporated towns, shall have power to require all grains, flour, meal, hay, feed, seeds, fruits, nuts, vegetables and nonliquid vegetable products, meats and nonliquid animal products, fish, butter, cheese, and other similar dairy products, dry groceries and all other similar articles of merchandise, or any particular class or classes of such merchandise, in the absence of a contract or agreement in writing to the contrary, to be sold by standard avoirdupois weight or by numerical count.

The above is the only change in our laws in relation to weights and measures since your last meeting.

We have with us, Mr. Kjellander, city sealer of weights and measures of Chicago, who will give you an interesting account of the great work he is doing there.

The CHAIRMAN. I have been a resident of Chicago, and I remember when I left there the city was just becoming awakened to the question of weights and measures, and Mr. Quinn, the city sealer, was getting very active. Since that time Mr. Kjellander has been carrying on that work, and the city, to my mind, presents one of the most interesting as well as one of the most difficult phases of this problem. I am always glad to hear from representative city sealers, especially of the larger cities.

Mr. KJELLANDER. Mr. Chairman and gentlemen of this convention, I am not going to speak on the subject of scales, because I think that is a subject that can easily solve itself. It is not so much the incorrect scales that we have to do with in the city of Chicago as it is the proposition of how to teach the people to use a correct scale correctly. The grocery men and merchants can not see 16 ounces; they can see only 13, 14, or 15 ounces to the pound; at least, it was so some years ago in Chicago. I am going to say something in regard to the State of Illinois, and then I am coming back to Chicago.

We have a law in Illinois governing weights and measures, a law in my opinion that is not worth much. At the last legislature I had introduced a new weights and measures bill, a comprehensive one, but the legislature, in turmoil during the whole session, saw fit to consider other questions rather than to pass measures that would be of more benefit to the public. They spent a great deal of time on these subjects in the dying hours of the session. My comprehensive weights and measures bill came up about 1 o'clock in the morning, when they set the hands of the clock back to 12 o'clock, and lost out by 3 votes. I succeeded in getting a bill through giving the cities and villages a right to sell all commodities by weight in place of measure. That was passed during the last hours of the legislature.

I also had another bill in the legislature of which some of you have heard, and have been trying to get through your own legislatures, and that is a net-weight bill. They, in Illinois, turned down the net-weight package bill, and I say to you without hesitancy, that not to indicate the net weight on package goods is to-day the biggest fraud and humbug that has ever been perpetrated on civilization. I lost that bill—capital was too big. I could not stand up against the pressure. However, we gave them a fight for three long weeks; we had them guessing for three long weeks. If I had been able to shake up the honorable chairman of the committee on municipalities for the State of Illinois, I probably could have gotten my bill out of the senate, but it slumbered in his pocket. For what reason I don't know. He asked me one day: "Didn't you get a fair hearing?" "Yes," I said, "I got the fair hearing, but that is all I did get."

We have, as I said, a poor law in the State of Illinois. However, men can do a great deal of business even under a poor law, and, thanks to the great police power of the different city councils and trustees of the different villages throughout the State, we have been able to do some work; at least in the city of Chicago.

I have had some decisions rendered by the supreme court in some of the cases that I have brought before it—decisions that are very strong—one upholding the milk-bottle ordinance and another upholding the ordinance requiring that a loaf of bread shall weigh a pound. In these two decisions the supreme court settled without any question

the police power of the city council of Chicago. The last two and a half or three years of my term of office have been very busy ones. I am not going to talk of theories, but facts. It is not because I want you to know what I have done myself, but what can be accomplished if you get proper ordinances passed and then enforce them.

There have been more inspections of scales and try outs of scales among coal dealers, ice dealers, and peddlers and more fines collected in our department during the last two years than there ever have been in the history of the department. I want to give you a few figures. In 1907 we tested 106,336 scales and measures and tried out 3,592 stores and places of business. In 1908 the number of scales and measures was 115,718, and the number of stores and places of business tried out was 6,142. The number of stores, places of business, coal dealers, ice dealers, peddlers, and so forth, tried out in 1909 was 8,800, an increase of 2,658 over the previous year. We have taken in during the three years mentioned in fines and inspection fees $88,367.55, the fees amounting to $66,855.55 and the fines to $21,512 for short weights. The expenditures for the same period amounted to $81,599.10, which proves that my office was more than self-sustaining to the extent of $6,768.45.

One of the first things that I encountered in my office (in which office I have had nothing but troubles, and any man who is a conscientious and efficient sealer, in my opinion, will have nothing but troubles) was impoliteness. Never does a man come into my office and say, "How do you do" in a friendly manner. No; he is mad when he comes in and probably mad when he goes out. One of the first things that came up when I took charge of the department was the milk-bottle ordinance, which provided that milk or cream should be sold in glass bottles or jars of 1-quart, 1-pint, or ½-pint size. I had the ordinance changed to read that if milk or cream was sold in glass bottles or jars, each of said glass bottles or jars should have the capacity blown on the same or otherwise indelibly or permanently indicated thereon, and, further, that each of said bottles or jars should be of the capacity it purported to be. The passage and enforcement of this ordinance gave me a great deal of trouble and many sleepless nights. Immediately the politicians, and not only politicians, but men of prominence in the city—those men who sit at banquet tables and say that a man who holds a public office is as a general rule a "grafter"—were the first to object when we came to introduce an ordinance of this kind. They did not hesitate to see the mayor of the city and demand my dismissal. They came to my office in droves, demanding that a tolerance over and under measure be allowed them. I took the stand that a quart is a quart, a pint is a pint, and a half pint is a half pint. I did not tell those men that they had to sell their milk in glass bottles or glass jars. I said to them: "Sell

your milk anyway you see fit, but if you are selling it in glass bottles or glass jars on which you have marked the capacity it must be that capacity. I do not care what you give over. I am not looking after overweight or overmeasure. I am looking after underweight and undermeasure." They presented arguments to me showing that it would be impossible for them to make an exact bottle and insisted that a tolerance must be granted. They went to the mayor's office day after day. They had the glass manufacturers there from all over the country. One of them told me something about a machine which he had to make bottles, and he said his bottles were the only correct bottles in the world. I said: "If your bottles are correct, go ahead and make them, but leave me alone." Finally one day he called upon the president of the Glass Manufacturers' Association and had him come to Chicago to see me. He argued with me and told me I must give them a tolerance. I said: "If you are making correct bottles, why do you want a tolerance?"

The ordinance was passed, and I gave the milk dealers a short time to comply with it. I sent my inspectors throughout the city and tried out the bottles in which milk and cream were being sold or offered for sale, and finally, after a number of flagrant violations, I sent complaints to the prosecuting attorney, who in turn brought suits before our municipal court. I knew when I started this, of course, from the tremendous pressure that had been brought to bear on me, that I was going to have a hard fight. I did not prosecute the small dealers, because I believe that if an ordinance is unconstitutional it is better left to the larger dealers, who can get the best lawyers in the country and who can argue in a better way than can the little fellow's lawyer, and then we can find out if our ordinance is unconstitutional or not.

Well, we went into court, and glass blowers from all over the country were present. They had written to the president of the Glass Manufacturers' Association to come there. He was put on the witness stand and was asked questions something like this: "What is your name?" "My name is ———." "Where do you live?" "New York City." "What is your business?" "President of the Glass Manufacturers' Association." "What do you know about glass bottles?" My attorney objected. The court sustained the objection, saying, "It does not make any difference what a man knows about glass bottles. The question here is, are these milk dealers selling a pint of milk, or a quart of milk, or are they not? That is the question before the court, and not whether glass bottles can be all blown of the same size." So finally the president of the Glass Manufacturers' Association went home, and he wrote me a letter afterwards in regard to some changes in the laws of the State of Massachusetts, and, in the course of his letter said, "This is the same gentleman that came all the way from New York City and testified to his name and address."

I suggested to the court that a fine of $50 and costs for each short bottle would be about right for them; and for the small dealers who could not stand such a fine, I recommended a fine of $10 and costs. The court accepted my suggestion, and fines to the amount of $3,500 were imposed, exclusive of costs, and were collected. The case was carried to the supreme court, and the supreme court upheld the city court, as I said before, in a decision so strong and clear that the case is now used as a standard in upholding the police powers of the cities and villages throughout the State of Illinois. The court held that 1 quart marked upon a bottle meant what it said, and that if the bottles could not be made all alike they could be made to hold a little more.

To-day the large milk dealers of Chicago have a contract with the glass blowers to the effect that a quart bottle must hold "one quart or more;" a pint bottle, "one pint or more;" etc., and a written guarantee to the effect that all bottles must hold full measure or more; otherwise the whole shipment will be refused.

A comparative test of milk bottles made before and after this crusade shows a difference in the capacities of the bottles. The first test, for instance, on 10,000 bottles (we tested many, many more), showed that 3,000 were correct, 2,000 were too large, and 5,000 were too small. The second test, made after I had carried those cases into court and after dealers had weeded out a lot of the short bottles, showed, out of 10,000 bottles tested, that 4,850 were correct, 3,650 were over, and only 1,500 were too small. The milkmen and glass blowers are complying with the ordinance at the present time. I do not say that you can not find short-measure bottles in Chicago, because it would be absolutely impossible, with my limited help, to drive them all out; but under the circumstances, with only 20 men, including myself, I have to do the best I can. We ought to have at least 75 men. I believe that the people of Chicago will soon be, if they are not already, pretty well educated on the question of short weight and short measure.

And, by the way, I say right here that it is only by education that we can get laws through Congress or our States legislatures to stop this short-weight evil. I have told the citizens of Chicago in open meetings time and time again, "If you will give me more help I can save you in money more than your yearly taxes amount to;" and you know how much people in the different communities are protesting against taxes. If you can save them as much as their taxes amount to in a year, it is a great benefit to them and they are going to be with you.

Another ordinance which I had passed and which was carried to the supreme court successfully, was our bread ordinance. The passage and enforcement of this ordinance caused me just as much worry and just

as many sleepless nights as did our milk ordinance. I did nothing but chew bread and drink milk for many weeks. They came, like the glass blowers and milk men, in droves to my office. They were very much interested, of course. They raised their hands in horror and said: "You can not regulate the weight of bread; that is ridiculous. Why, we are losing money on our bread to-day. On every loaf of bread we are selling to-day we are losing money." When these ordinances came up before this committee they were there, and one of the gentlemen, who was manufacturing 62,000 loaves of bread a day in Chicago, said before that committee: "Gentlemen, this is a great hardship." I said, "Of course it is a hardship. It is a hardship on some one to regulate anything. You should do just as you see fit. Give the people as little for their money as you possibly can, and do not at any price let them know how much you are giving them." I will not mention the gentleman's name. He is probably known throughout the East, and he had the audacity to tell intelligent men on the judiciary committee that he was losing 30 cents on every 100 loaves of bread that he was delivering throughout the city of Chicago. I said to the judiciary committee, "Do you believe that? It is a slur upon your intelligence, gentlemen, to listen for one minute to that man." I said, "If it were true you ought to raise a monument to this man immediately in the city of Chicago for his charitable inclinations toward the people."

Well, the bakers claim that bread can not be manufactured and sold for 5 cents a loaf, or for 4 cents a loaf, with a profit. I say to them, and have told them time and time again, that it can be manufactured with a profit at that price. One of the biggest concerns in Chicago, manufacturing several thousand loaves of bread a day, gave me the figures a few days ago, showing that bread costs them $1\frac{7}{8}$ cents a loaf to manufacture. That includes labor, investment, and all ordinary expenses, besides the raw material. Then on top of that comes, of course, the delivery; and I dare say that the delivery will not cost them more than about one-fourth of a cent per loaf; and they are selling it at 4 cents, which gives net profit enough for any man. Still, the poor bakers can not live! This charitable gentleman referred to by me started, for instance, some years ago with the magnificent capital of $2,000, out in one of our suburbs, and to-day he has bakeries all over the country. Probably his plant in Chicago alone is worth half a million dollars—and still he has lost money!

The cities and villages act gives power to the city council to pass ordinances regulating the size and the weight of bread in the loaf and the quality thereof. We, therefore, as I said, had a bread ordinance passed by the judiciary committee and by the city council. We made the standard loaf 1 pound, but we allowed them to manufacture three-quarter pound, half-pound, 2-pound, 3-pound, 4-pound,

5-pound, and 6-pound loaves. I am not just exactly satisfied with this bread ordinance. When I came before the judiciary committee I fought against the three-quarter pound loaf. I was satisfied in my own mind that if it were allowed the bakers would make that the standard loaf. However, my attorney, the corporation counsel, advised me, and also some of the lawyers on the judiciary committee, that if I did not give the bakers the privilege of manufacturing loaves in as many sizes as possible, the supreme court would probably not uphold the ordinance. The supreme court said at one place that in their opinion the ordinance was not unreasonable, even though it might be drastic, because a variation of sizes is allowed; and probably if that three-quarter pound loaf had not been put in, the ordinance would have been held unconstitutional. However, if the people of Chicago demand that the three-quarter pound loaf shall go I will be the first man to introduce an ordinance in the city council for that purpose, and we will fight it out again, if necessary, in the supreme court.

We said: "You can label it only in pounds or fractions of a pound; you can not label it in ounces." The reason for that is that we have a great many foreign people in Chicago who do not know what 1 ounce or 10 ounces mean; but they do know what a half pound means and what three-quarters of a pound or a pound mean.

There is a penalty provided of not less than $10 nor more than $100 for every violation. The ordinance also provides that the weight shall be marked upon the loaf, and the name of the maker and his address must also be put on the label. At the present time some of the bakers are guilty of violating this ordinance in that they are marking the loaves "12 ounces" or "14 ounces," and before I left Chicago I started somewhere in the neighborhood of 10 to 15 suits against those violators of the city ordinance. The baker that I have started the most suits against is the "goat" of the large manufacturers, and has a small shop out in the South Side. Of course, the large manufacturers do not want to appear in this matter, so, as usual, they get a small manufacturer to violate the ordinance so that when suit is brought against him they may again be able to go to the supreme court of the State and try to have the ordinance declared unconstitutional. However, they are going to be fooled on that proposition, because I do not believe that the supreme court would reverse itself on this matter, especially as there was not a dissenting opinion, but every one of the judges agreed that we ought to have a bread law.

And there is nothing, in my opinion, more necessary than to have a bread law in this country. Bread interests every family in the United States; it is the staff of life; and if there is anything that ought to be regulated, it is bread. There can not be too strict regu-

lations on bread. The bakers said to me, "We will raise our price on bread." I said, "I can not regulate your prices, but I can regulate the size of your loaf." I do believe that even though the loaf be a one-half or a three-quarter pound one, some good will come out of it, for the reason that some bakers will manufacture a pound loaf, and competition will then regulate the price. When one man starts to make a pound loaf, some of the rest of the gentlemen will have to follow suit. One of the big department stores of Chicago to-day is making a 16-ounce loaf and selling it for 5 cents, or three for a dime, and advertising it throughout the city. When one big concern makes a 16-ounce loaf, others are going to follow.

The bakers, of course, said that when the price of flour went up they were compelled either to raise the price or else reduce the size of the loaf. I said to them, "But when flour goes down do you ever increase the weight of your loaf?" "Oh, yes;" they said, "we do." I said, "You are not telling the truth, because I have investigated your bread. I have weighed it when flour was down, and I have weighed it when it was up, and you have not come up with the size of the loaf when flour was down." So much for bread.

We have had some other ordinances introduced since I became city sealer; for instance, the coal ordinance. It was very common for dealers to give 1,800 pounds for a ton of coal. We got an ordinance through to the effect that they must give to their driver, or whoever delivers the coal, a ticket stating the net weight and the name and address of the purchaser of the fuel, which ticket must be delivered by the driver at the time of the delivery of the fuel. The way we do business is this: Two inspectors will follow a coal man from his yard and request his delivery ticket, and then take him to a scale and get the gross weight of the load and allow him to deliver the coal, and then take him back to the same scale and weigh his wagon and horses, and in that way get the net weight. If the net weight is not what the ticket calls for, he is called into the office, and if necessary, prosecuted.

I want now to tell you how we detect short weight in other lines. Our inspectors are sent out all over the city, and for instance, two of them enter a grocery store and ask for a pound of peas, 2 pounds of sugar, 3 pounds of tea, etc. After they have received the articles they do not pay for them; they simply take the goods and weight them, because our ordinance reads, "Any man who sells or offers for sale," and that settles it—the offering for sale. We order six articles and weigh them, and if we find that three are short and three are correct, my practice has been in the first instance simply to give them a warning and tell them to do better. If they are short on all of the articles, or on five of them, they go to the municipal court and settle, not with me, but with the judge of the court.

Sometimes we go into stores and find boxes on the floor, and on top of the boxes, a bill for the groceries contained therein, ready for delivery. We weigh all the articles and if they are found short the merchant has to come into the city sealer's office and explain.

It was said a minute ago on the coal situation that in some of the States coal in small quantities was sold by measure instead of weight. In Chicago we do not allow coal to be sold any more by measure. A short time ago an ordinance was passed by the council requiring that all coal must be sold by weight, so that in Chicago to-day every bit of coal is sold by the pound and not by measure. Before that it was the case among the poor people that in place of paying a reasonable price for coal they were compelled to pay an enormous price, soft coal often being as high as $8 and $9 a ton. When dealers were allowed to sell it by the bushel, a bushel meant almost anything. We said, "It shall be heaped up." Well, it is easy to heap a coal basket. Take three big pieces of coal and put them in a basket and it will look very nice on top, but look at the holes in the bottom! Therefore it is no more than fair that coal should be sold by weight. The corporation counsel's office advised me, when we introduced that ordinance in the city council, that it might not be constitutional. I said, "Let us try it. Nobody has ever raised any objection, and we are going on." I say to all of you men who are city sealers, that upon your return home go to your councils and ask them to introduce short-weight ordinances; give them notice, and tell them that you mean business, and the merchants and everybody else will want to be your friends in the long run. When I first started out on the short-weight question in Chicago they thought I was the meanest man in the city. But I said to them, "What the honest merchant needs is a city sealer. The man who is underselling you on the corner out here, the man who advertises sugar below cost, the man who advertises potatoes below cost, or any other commodity, is a short weigher in all probability, and that is the man you will have to compete with. You are giving honest measures; you are giving full weights; but that man is not. He is underselling you, and you will have to compete with him." And, in my opinion, that is the way to talk to merchants; and if you talk to them in that way they are going to see the wisdom of having protection not only for themselves, but for the people.

The icemen in Chicago rebelled against selling ice by weight. I said to them, "You must either weigh your ice or be arrested." The great objection to the ice ordinance is that in our city the big ice concerns weigh out to the men every morning a load of ice, say of 5,000 or 6,000 pounds, and allow them to save what they call "beer money" out of that load. For that reason we can not very well get after the ice companies themselves, but have to get after the iceman if he does not give full weight. The way the icemen do in our city is this: The

ice company sells coupons to families, these coupons calling for 50, 100, or 200 pounds, etc. When a man comes to your house and delivers a piece of ice purporting to be 50 pounds you give him a 50-pound coupon. He will probably give you 40 pounds and save 10 pounds. He saves 10 pounds on one delivery, 20 pounds on another delivery, and so on, and all he can save he sells for cash, and that is what is commonly called "beer money." I saw that I could compel the companies to weigh the ice, although I could not hold them for short weight. The first ice company that I requested to comply with the ordinance replied, "If you are going to compel us to weigh ice in the city it will cost us, during the season, from $50,000 to $75,000 more." I said, "That is none of my affair if it costs you $200,000. The ordinance is here, and if you do not obey it I am going to sue you for not weighing ice. You are responsible for your agent, and you must compel your agent to weigh the ice." In a few days they had a directors' meeting at which they finally came to the conclusion that ice must be weighed, and they posted in the different barns notices to the effect that any man who did not weigh the ice would be dismissed. I do not say that all the icemen are weighing ice to-day in Chicago, because it is an impossibility for my inspectors to follow them all, but many of them certainly are.

I am going to speak on only one more subject. I would like to speak a great deal longer if the time allowed and if you would listen to me, but I want to say in conclusion something on the original-package proposition. Nothing, in my opinion, is of such great importance at the present time to the people of this country as is the question of the net weight of original packages. Original packages have shrunk so that they contain practically nothing, or at least very little; and if the packages are going to shrink at the rate they have been shrinking in the last few years, they will contain nothing, in my opinion, except air. For instance, the oatmeal package was originally 32 ounces. First it shrunk to 24 ounces and then to 20 ounces. When a package is first sent out in the market, it is, as a general rule, of a standard size; that is, a pound, 2 pounds, 3 pounds, etc., but after the manufacturers, through enormous advertising, have created a demand for their goods, then they shrink the package. Who pays for this enormous amount of advertising? Nobody except the retailer in the first place and afterwards the consumer.

In Chicago all fruits and all berries are sold by the box or by the basket. We have no regulation on that important subject. We will have it, however, if this ordinance goes through which I spoke of before. At the present time they are sold by the package. Take berry boxes, for instance; the bottom is in the middle of the box. I have not been able to figure out the reason why the bottom is in the middle of the box, except that it may be done for convenience, so that

they do not need to look to see which is the top and which is the bottom in filling them. Somebody sent to me, through the mayor of Chicago, what was supposed to be a pint box of berries, and it contained exactly 10 berries. The mayor forwarded the box to me with the request that I do something about it. If we had some regulations I might do something, but dealers can put one berry in a box if they see fit and say, "Here is a box of berries." "Box of berry" it would be; not "berries."

I think a resolution ought to be passed indorsing the stand that the Bureau of Standards has taken in advocating in Congress a net-weight bill. This will probably come up for discussion this afternoon, but I will say now that I do not agree absolutely with them in their bill. In reading the bill over last night I noticed that they have the word "approximate" in it—the approximate weight. Now, what does "approximate" mean? "Approximate" means anything. What would be approximate to you might not be approximate to me. Dealers might state then on their packages, "10 to 12 ounces." That would be an approximation. They may say "about 12 ounces." That would be an approximation. I think that that word ought to be stricken out. If the "tolerance" as stated in the bill is to be left to a commission, I say let the commission decide how much "approximate" shall be, because tolerance and approximation probably have the same meaning; but do not let us have the word "approximate" in the bill, because, in my opinion, you would not be able to get any convictions under the bill.

In conclusion, I want to say that I am very glad that the Bureau of Standards has taken up this work. I congratulate the Bureau of Standards for the great scientific work that it has done in the past. Building up such an institution as this in eight years, as I understand, is something wonderful, and the men are entitled to the greatest credit for that work. But I congratulate them still more upon the work that they are undertaking to do; and I say to you men here that in place of Congress appropriating $10,000 for the Bureau of Standards to undertake this immense work throughout the country, to encourage the establishment of State sealers and city sealers if necessary, and to find out the real conditions existing throughout the country, it ought to appropriate at least $50,000 or more. It is a thing that is of greater importance, in my opinion, to the public, than any subject that has been taken up for a long time. And, gentlemen, if we here assembled to-day can in any shape or manner, get a net-weight package bill through Congress, we will do more for the people than any set of men has done for a long time. And when the bill goes through, we may congratulate ourselves upon what we have done in this matter.

I have taken a great deal more of your time than I expected to, but I am a fanatic upon short weights, and that is the reason I have talked so long. I thank you very much.

The CHAIRMAN. I have always thought that this question of weights and measures was contagious. In fact, I know it is contagious; and I think we have been well and amply repaid for this meeting, and for our journey here, by the infection that we have received from this one speech alone.

I quite agree with Mr. Kjellander that the amount of money given to the bureau is small, but there has been such a great cry of economy in the last few years it seemed to us better to get a moderate sum and show the necessity for it; and if we get results from that, I have no doubt that Congress will stand by us.

The SECRETARY. I would like to say a word in reference to that word "approximate," appearing in the bill referred to. The bill as presented by the bureau to Congress did not have that word in it. The gentleman who presented the bill insisted that it ought to be there. Dr. Stratton delegated me to see him and have a talk with him about some other changes, and he was quite positive that it was necessary. I did not agree with him. It seemed to me that if a commission was appointed to establish regulations it should have ample power to specify what the tolerances should be.

The CHAIRMAN. It seemed to us to be unwise to insist too much on little things; but I know, from my personal knowledge of this gentleman, that he will be very ready to listen to arguments. It seemed to us better to make that concession for the sake of getting the bill introduced.

Mr. KEMMERER. Mr. Chairman, I would like to ask Mr. Kjellander one question, as we are considering an ordinance in regard to coal. Is any allowance made for difference in scales, and how often are scales tested?

Mr. KJELLANDER. Every six months. The law compels us to test those scales every six months; they are sometimes tested oftener. In our ordinance there is no allowance made. That is left entirely to the judgment of the head of the department. You have to take everything into consideration, and we may allow sometimes 30, 40, or 50 pounds on a big load.

This is what I have against tolerances and against allowances. If you fix an allowance or give a tolerance, dealers will take advantage of it all the time. For instance, if you allow 50 pounds in a ton of coal, in place of giving 2,000 pounds they are going to give 1,950 pounds. Probably with original packages we will have to do something of that kind; but wherever you have an ordinance introduced, my advice to you is to use your own judgment about tolerances and allowances, but do not specify it in your ordinance.

Mr. KEMMERER. The ordinance first proposed by our council was practically against the coal man. When it came before the ordinance committee, the city attorney, who was chairman of that committee, raised the question that if the coal dealer was dishonest, why were not all the other merchants dishonest in dealing in all commodities. They had an allowance then of 30 pounds on the ton for differences of scales. Taking the scale out in the open in the winter time, with ice and snow around it, 30 pounds was thought to be a good practical allowance. But instead of sending that bill to the council they took it out entirely and put in the bill that I mentioned some time ago.

Mr. CLUETT. Mr. Chairman and gentlemen, I came down here with Mr. Kjellander more to be a listener than anything else. My position as chief deputy sealer also includes that of a private scold, information to the public being given out by Mr. Kjellander himself, and I think he has covered the situation in Chicago pretty thoroughly.

The CHAIRMAN. The State of Kansas is represented by Prof. M. E. Rice, deputy State sealer. We will all be very glad to hear what they are doing in Kansas.

Mr. RICE. Mr. Chairman and members of the conference, I came here like most of us, I believe, to listen to talks by those who have had more experience. Kansas has had comparatively little experience with weights and measures or with the enforcement of regulations concerning them. During the last year, however, I think the legislature has done as well as we could ask in passing new laws on weights and measures, and I think those laws will probably enable us to do a great deal of good work. They have, fortunately, left in the discretion of the State sealer the fixing of tolerances. The law does not specify these, so that it is a question of the judgment of the State sealer's office.

I noticed one feature in the law a few weeks ago that is perhaps novel, and I want to read it to you.

> The State sealer shall keep a record of all the weights and measures, balances, or other measuring devices sealed or condemned by him, and shall make an annual report to the governor on or before January 1 of each year, and copy of which report shall be filed with the National Bureau of Standards.

Evidently the aim there is to keep this State administration in touch with the national bureau. A copy of that report I gave to Mr. Fischer a little while ago.

I have some copies of the law here which I will give to those of you who are interested, and if you notice any feature which is particularly good, or which is objectionable, it would be an accomodation to the Kansas people if you would call my attention to it.

One undesirable feature is this, that there is no State sealer of weights and measures whose chief business is that of sealing weights and measures. The law prescribes that the chancellor of the State

University shall be ex officio State sealer of weights and measures, and that he shall appoint a deputy who shall be a member of the faculty of the State University, and who shall receive no other compensation than his faculty salary. This, of course, robs the office of some of the enthusiasm which it would have if it were an independent office. But I believe that the university will have to do in that regard what it has done in some other lines of work, i. e., relieve the instructor of practically all his teaching, and make him essentially and purely a weights and measures man. That is entirely possible within the letter, and, I believe, the spirit of the law.

The county clerks are made by law sealers of weights and measures, and also inspectors of weights and measures if they see fit to inspect, but they are not compelled to inspect. Municipalities may create departments of weights and measures, which departments are coordinate in authority with the county clerks, and are subject to any regulations which the State sealer may see fit to issue. So, if they see fit to act, we would have the county clerks as inspectors and sealers.

In some of the cities the municipal sealers and inspectors are doing good work, but there is no State-wide inspection by the weights and measures department as such. But we have this provision which takes its place to a considerable extent: That the State board of health inspectors are ex-officio inspectors of weights and measures, though not sealers. They can condemn faulty weights and measures, but can not correct or seal them. This provision is just beginning to have its effect now, as the inspectors have had their outfits sealed by the State sealer only within the last four months; and we are beginning to hear from it by faulty weights being sent into the office for adjustment and sealing where there is no local man who can do the work. The State board of health has confined its attention practically to the weights and measures which it encounters in the grocery stores and other stores dealing in food and drugs for human beings. They have not gone into the grain stores or others of that kind.

There is one question that I would like to bring up in regard to the county clerks getting sets of standards that can be approved by the State sealer. We have prescribed in our regulations the limits of tolerance that we will permit in the county standards and the limits of tolerance that will be permitted in inspection work. Now, the fundamental object in that inspection work, as I understand it, is to make the commercial quantities measured out to the consumer reasonably correct, and that is to be accomplished, so far as the scales are concerned, by the county standards being more accurate than the commercial weights and measures that are checked by them. I just noticed the discrepancies between the tolerances of county

standards and of the corresponding commercial weights. For instance, in the tolerance table, as issued for commercial work, a 10-pound weight must be within one-eighth of an ounce (these tolerances are not established by law, but are office rulings), while the tolerance for a 10-pound county standard is seven-tenths of a grain. So the commercial tolerance here is 55 grains, and the allowable error in the standard for the county is seven-tenths of a grain. Now, it is this 55 grains that we are really interested in, and not the seven-tenths of a grain. This seven-tenths of a grain requires the county clerk to have pretty high-priced apparatus. Personally, I want to raise the question whether we could not accomplish more good by lowering the accuracy of the county and local standards a little and slightly raising the accuracy of the commercial weights and measures, so that the ultimate commercial tolerances would be the same, but the expense of the county standards would be very much less. The county commissioners say, when they learn that $400 or $500 are necessary to get the prescribed county outfit, "Well, we will not order it," and that is the end of the matter. The question is whether we can not wisely lower the exactions of the county and local standards so that they can be met by well-selected, first-class commercial goods that would do for all the ordinary testing and inspection, even if some of the most careful work has to be sent to the State sealer's office.

A year ago a circular letter was sent out from the State sealer's office in regard to the equipment of the various counties. Very few of the counties reported any appreciable equipment, and what they have is frequently found to be more or less mildewed or rusty.

A few of the cities have inspectors who are doing good work. In October we issued a little pamphlet on weights and measures regulations. We sent them to all the county clerks, local sealers, county attorneys, and county commissioners, sending out about five or six hundred copies. We have about 400 copies left for the merchants and dealers in the larger cities who have been sending for these and trying to become familiar with what is legitimate.

I think the spirit in Kansas is right in regard to the subject of weights and measures, but it is a little too early yet to judge definitely the success of the law we have just passed. I want to agree very strongly with what has been said by one of the preceding speakers, that whether we have a perfect law or not, before we attempt to change it we must see what we can really accomplish under the existing law; and I think a great deal can be accomplished under the present law, especially if the State University should decide to relieve the deputy sealer of his entire work of teaching, so that he could become to some extent an inspector and visit the different parts of the State.

I think that is all I wish to present at this time, until specific matters come up for discussion. I shall be glad to answer any questions, however, so far as is possible with our limited experience.

Mr. REICHMANN. Have you made any convictions so far?

Mr. RICE. No; we have not, directly. The State food inspectors have made some convictions for faulty apparatus and short weights.

Mr. PALMER. Mr. Chairman, I would like to ask Mr. Rice what his experience with the enforcement of the bread law in Kansas has been.

Mr. RICE. Nothing, so far as the State sealer is concerned.

Mr. PALMER. Have there been any local convictions or attempts to enforce your law?

Mr. RICE. No; but I understand that the State board of health is getting after that, and that the convictions on that line will come from the board of health.

Mr. STIMPSON. If you will allow me, I will say a word in regard to that, as I had a conversation with one of the board of health inspectors when I was out there. The bread law in Kansas was referred to the district court of Leavenworth for a decision as to its constitutionality, and the law was upheld. Whether the case has since been appealed to any higher court I can not say.

Mr. REICHMANN. Do these food inspectors who inspect weights and measures in grocery stores make any report at all to the weights and measures officer as such, or do they make all their reports to the department of weights and measures?

Mr. RICE. They are compelled to keep a record of the weights and measures inspected.

Mr. REICHMANN. But does the law state to whom reports shall be made?

Mr. RICE. I understand a report is to be made to the State sealer. The chancellor asked me about that a month or two ago, and I think he ruled that so far as the State sealer's office was concerned we were interested in the total number of weights and measures inspected and in the detailed report and identification of the incorrect weights and measures.

Mr. STIMPSON. It is provided that county and municipal sealers and other persons authorized shall keep records of all weighing and measuring devices inspected, sealed, and condemned, giving the name of the owner or agent, the place of business, the date of inspection, kind of apparatus, and whether sealed or condemned, and shall make an annual report of the same to the State sealer before September of each year.

Mr. RICE. For instance, an inspector goes into a store and tests 40 weights. Of those 40 weights we will say 38 are correct and 2 are incorrect. Would it be sufficient to specify the 2 that are incorrect. or would he have to specify in detail each of those 40 weights? I

think the chancellor's ruling was that for the present we would ask the State food inspectors to report the total number of weights or measures tested in each place and specifically report the faulty ones. When they find a faulty one, they tag it with a "condemned" tag, and it goes to the county sealer to be adjusted and sealed, if there is such a person; otherwise it comes to our office to be adjusted and sealed.

The law prescribes that the State sealer shall seal, without fee, all weights and measures sent to him from the county clerks or the city sealers, or any official sealer or inspector, and if private persons send weights and measures in to the office, then he shall receive the same fees as a local sealer would receive for testing and sealing. If the measures require adjustment, he shall receive a reasonable compensation for adjustment. As I say, the law has not been in operation long enough to create a routine method. The few private weights that have come in I have either fixed myself or hired some one to fix at so much per weight, and then sealed them and returned them.

Mr. Reichmann. Mr. Chairman, I move that we take a recess until 2 o'clock.

The motion was carried and, accordingly, at 1.25 p. m. a recess was taken until 2 o'clock.

SECOND SESSION (AFTERNOON OF FRIDAY, FEBRUARY 25, 1910).

The conference reassembled at 2 p. m.

The CHAIRMAN. Mr. Rice, have you anything further to say?

Mr. RICE. I have just one further statement to make. I wish to emphasize what Mr. Kjellander said. We have one paragraph in our law in regard to variations in measure which reads: "A slight variation from the stated weight, measure, or quantity for individual packages is permissible, provided this variation is as often above as below." This leaves it a little indefinite, and I simply want to emphasize the point that if you are framing a new provision you will have to watch that point pretty carefully. We have already lost one or two cases on account of the uncertainty of that statement.

The CHAIRMAN. The next State is Maine. I understand that the delegate from Maine says he has no report to make at present, but may speak later. The next is Massachusetts. We are always glad to hear from Mr. Palmer, State commissioner of weights and measures, and we know we are going to hear something interesting.

Mr. PALMER. We have made some progress in Massachusetts during the past year. As I have explained at previous conferences, the law of Massachusetts is a very old law. One of the earliest acts in our colonial records was that in regard to weights and measures. Additions have been made from time to time, and it is our intention at some later date to remodel our State statute. Our legislature, I have no hesitancy in saying, is perfectly willing to do whatever we ask them to, within reason, on this subject; and I hope that before long we will have some suggestions from the Bureau of Standards in regard to such legislation, in order that we may have, with some of the other States, model State regulation. I have been much interested in the report from Kansas, because I know that they have to some extent adopted some of the recommendations made by the Bureau of Standards, and I hope that before long we will hear more of the results of their experience in the matter.

The legislature of 1909 made some changes in our law. Our bread law provided that signs stating the price and quality of loaves of bread should be conspicuously placed in stores selling bread, and also in the front windows of the stores. The latter proviso seemed to be unreasonable, owing to the fact that our large department stores had delicatessen departments where they carried bread, and it seemed unfair that a dealer should be required to place a sign, stating the

price and quality of bread, in the window with women's underwear, corsets, and other things which are usually displayed in places of that kind. The amendment, changing the law, was adopted without opposition.

In Massachusetts we have a condition which I presume is just a bit different from what exists in any other State, with perhaps the exception of Rhode Island. In the early law it was provided that county treasurers should act as county sealers. The law also provided that each city and town should have a sealer. We have enforced the provision that each city and town should have a sealer, and that he should enforce the law to the best of his ability. The provision that the county treasurer should act as county sealer seemed to be unnecessary, and has been repealed. I might add that Massachusetts furnished each city and town and each county of the Commonwealth with a set of standard weights and measures, which were considered very beautiful pieces of apparatus in the days when they were made, some 70 years ago. These were placed in a large cabinet, and in a great many places appeared to be objects of interest in the county offices. Several of our small towns—of one or two stores—had their standards destroyed by fire, and it was somewhat of a hardship for those towns to pay $500 for a new set of standards, as that is what our sets now cost. I saw the opportunity to abolish the county sealer and to provide for the return of the apparatus to the State, and made that recommendation to the State legislature, which was adopted. We are now having those standards returned to us, and after remodeling them will supply them to the small towns which are without standards. Of course they pay a small charge for them, about $150, but they answer every purpose. So that the county supervision is practically done away with in Massachusetts at the present time.

Another act provided for an amendment to the berry law. We have a law, as you undoubtedly know (I have two or three copies of our State compilation here and I should be very glad to send additional copies to those who may desire them), providing for the sale of berries in certain packages; that is, in standard quarts, pints, and half pints. By some oversight blueberries and raspberries were omitted, and the legislature, as the result of a suggestion which I made, included those berries.

In 1909 we adopted another very important piece of legislation which provides for the inclusion of all sealers of weights and measures in cities and towns of over 10,000 inhabitants in the classified civil-service list. I think that is one of the most important pieces of legislation that we have put on the Massachusetts statute books in regard to sealers of weights and measures, and we already learn that it is producing good results. This is the first year, of course, that

reappointments of the sealers have not taken place, and there has been great political influence brought to bear to have men appointed to one or two cities which have lost sealers; men who were entirely unsuited for the duties of the position.

In our State statute we have also provided for supervision of scales, weights, and measures which are used for the purpose of buying or selling. In the enforcement of the law we found that the inspection of the "penny-in-the-slot" (as we commonly call them) weighing machines, thousands of which are used all over the country, did not come within the statute, and rather than take the matter to the supreme court, the law was changed.

There was another case where we had city weighers' scales, of which you have probably all heard, scales which are used by the men who are called city weighers for the purpose of checking up customs weights for importers, and in Massachusetts and other cities of the country there was practically no supervision of these. These men were not even appointed by the cities, and they operated as they saw fit. There was no official supervision of any kind either over the men who did the weighing or over the apparatus which they used. There was no guarantee to their employer that their apparatus was correct, and quite often they produced a different result in their weighings from the customhouse people. It appeared very important, therefore, that these scales should be inspected, and a statute was enacted which provides that the sealing laws shall apply to all weighing and measuring devices used for the purpose of weighing or measuring for hire or reward, which is very broad, as you can see, and takes in about everything that was not taken care of before.

The law in regard to the sale of kindling wood was slightly amended.

Chapter 531, acts of 1909, relative to the sealing of glass bottles and jars amended the existing statute to allow for the use of what is known as "manufacturers' seal mark." I can not point with any degree of pride to this particular legislation, because I am ashamed of it myself. It was passed as the result of a petition of a large number of bottle manufacturers in the State of Massachusetts. Our old law provided that all glass bottles used for the sale of milk or cream should be sealed, and provided for tolerance; and unfortunately we have tolerance below the standard as well as above. There is a question in my mind as to whether or not this is constitutional, and this question may be submitted to the courts at a later date. I have asked the Bureau of Standards for their interpretation of the statute, and I believe they have submitted the matter to their law officer. I trust their opinion will be forthcoming at a later date as to whether or not the State has authority to establish tolerance.

Mr. KJELLANDER. I beg your pardon, the Illinois supreme court said that they had not.

Mr. PALMER. I am glad to learn that. Of course it was somewhat of a hardship for dealers to have all of their bottles sealed; and these manufacturers came forward, with the cooperation of some of the dealers, and asked our legislature what appeared to be a fair proposition, for permission to bring into the State of Massachusetts their bottles and guarantee that those bottles did come within the prescribed tolerances; and to show that they had acted in good faith they would put their name or any mark designated by the State commissioner on the bottles. They also asked that the bottles that came in under those conditions should be exempt from sealing by the local sealer. The original bill which they drafted was called to my attention, and my first suggestion was that there was no penalty provided for the manufacturers for evading or not complying with the law. They finally agreed to a provision which was added to the bill to the effect that the manufacturers would be required to file a bond with the State commissioner of weights and measures, and in case they did not comply with the conditions of the law the bond would be forfeited. I do not know of any person in Massachusetts making milk bottles, as they are all made outside of the State. Of course it would be almost impossible for us to prosecute a manufacturer in Pennsylvania or other States under this law. On general principles I appeared in remonstrance to this bill, and it was referred back to the committee three times. Any legislation introduced in Massachusetts must have a public hearing and be passed upon by the committee; it can not be killed in the committee.

The committee on mercantile affairs who heard this bill appeared to be impressed with what I said. In our State we have a law which prevents a State officer from attempting to influence legislation, and as I did not want to violate this statute I could not appear too prominently in connection with the consideration of this bill. The bill was finally passed in its present form, which does not include the clause to the effect that a bond should be filed.

In accordance with the requirements of the statute, I issued certain designating marks, and the manufacturers appeared to be observing the law. Recently, however, we began to make investigations and found quite a number of bottles bearing "manufacturers" seals blown into the bottle which tested from 2 to 5 drams below the tolerance allowed by the State statute. In view of these facts, I am of the opinion that our next State legislature should be asked to abolish tolerances entirely. Legislation of that kind seems to be prevalent in other States, namely, that bottles must hold a quart, pint, or half pint.

Chapter 541, of 1909, is an act relating to taximeters. Massachusetts, I suppose, is the first State to adopt legislation in regard to

taximeters. I say that with confidence, because I have written all over the country and failed to find any place where they inspected these devices.

Mr. KJELLANDER. We are testing taximeters at the present time. We have a machine that we are testing them with, and when I left Chicago we had tested about 75 of them.

Mr. PALMER. That is under your department?

Mr. KJELLANDER. Under my department.

Mr. HASKELL. It is the same here in the District.

Mr. KJELLANDER. We will have them all tested within 8 or 10 days from now.

Mr. PALMER. I am glad to know that. We have had quite a number of complaints about the taxicabs used in Boston. These cabs have been used in our State for about two years without supervision or inspection, and as many complaints were made as to their inaccuracy I called the matter to the attention of our legislature. At that time taximeters were used in three or four cities in the State, and in some places there were only two or three used. Boston had the majority of the meters used, and it seemed a hardship to require that all cities go to the expense of establishing courses and examining into this intricate device, as we found it to be. The legislature, therefore, adopted a statute placing this supervision in my department.

This is the way taximeters are inspected: We first satisfy ourselves as to the accuracy of the general type of the meter itself. We have established mile testing spaces in different sections, the different divisions of the mile being marked. The cab to be tested is brought to the starting-point and run over the measured space four or five times, as may be necessary. If the meter is correct, the department seals it; and if it is incorrect, it is condemned. The first testing, which was done by the department about six weeks ago, showed a wide variation in the meters. According to a local ordinance in the city of Boston (the charges are all governed by ordinances), persons using a taxicab are entitled to 6 minutes waiting time for 10 cents. It was discovered that for the first 30-cent charge which was thrown over for waiting, instead of getting 18 minutes, as they should under the law, they were getting only 12 minutes. That has been going on in Boston and every other city in the Commonwealth ever since they have been used.

The cabmen objected very strenuously to some of the rules. We found that other cities had established quite an elaborate system of rules, for instance, that meters shall be illuminated. I believe Chicago provides that they shall be illuminated.

Mr. KJELLANDER. They have agreed to do it in Chicago.

Mr. PALMER. I thought when we started the enforcement of it that the companies would object to it most strenuously; but they have all agreed to it.

Mr. GOODWIN. Mr. Palmer, I would like to ask you a question regarding this taxicab business. Do I understand that persons are charged by the time limit that they are using the cab?

Mr. PALMER. They are when they are waiting. It is what they call a waiting charge; that is, when the cab is not in actual operation or traveling. If you go shopping and stop at a store, for instance, while you are in that store you are charged for the use of that cab 10 cents for every six minutes or fraction thereof.

Mr. GOODWIN. Is there a maximum or minimum charge for a certain distance?

Mr. PALMER. Yes, sir; we have in Boston two tariffs, first and second, for two or more than two persons. The first is 30 cents for the first half mile and 10 cents for each additional third; the second is 40 cents for the first half mile and 10 cents for each additional quarter.

Mr. KJELLANDER. In Chicago we compel them to carry four passengers for the same rate as they carry one passenger. That is, we have done away with tariff 2, as they call it. We came to the conclusion that under tariff 2, if the chauffeur was dishonest, or if the company was dishonest, any man who took a taxicab naturally would think if there were two passengers and he saw "tariff 2" there, that it was for two passengers, whereas it was for three or four passengers—and that is the way they used to cheat in Chicago. So we did away with tariff 2, and the charge is now the same for three or four as for one person.

Mr. HASKELL. That same matter came up in the District here, and we did away with what we call the "double charge," so that one passenger or five passengers are now carried for the same price. The idea was that the driver, if he was so inclined, would pull his flag down and charge a double tariff where he should charge a single tariff.

Mr. PALMER. I think that is what will eventually be done in Boston. The largest taxicab company has already changed voluntarily. I speak particularly of taxicabs at this time for a reason. I want to illustrate an inquiry that is quite often made to us. People are surprised and say, "Why, how do taxicabs come under your department?" We say, "They use a measuring device." That is the story in a nutshell.

But the Bureau of Standards, you know, goes even further in that line and says that the commissioner, or whatever he may be, should have charge of the supervision and inspection of water, gas, and electric meters.

The CHAIRMAN. He should have.

Mr. PALMER. We have at the present time an agitation of that same question in the city of Boston. We do have State supervision of gas meters and have had for some years. That is under the supervision

of the board of gas and electric light commissioners, and the inspectors are called State inspectors of gas meters. I am not prepared to say that it is entirely satisfactory. I know from my own experience with a gas meter which I have in my house that I have had considerable difficulty in having it tested. One of our citizens is very much worked up at the present time over what he calls "demand" electric meters. I am not sure that you know what that is. It is additional to the regular electric meter used by the electric company for determining the amount which shall be charged to the individual. It seems that these have never been supervised, as there is no inspection of them, and this man states that he has found the greatest discrepancies in them. He claims to have been overcharged by the electric-light companies, and the matter is under consideration now, as he has petitioned the governor for a hearing on the matter.

Mr. Goodwin. I would like to ask you a question in regard to the testing of the gas meters. Does that come under your jurisdiction?

Mr. Palmer. It does not.

Mr. Goodwin. Is there any law providing for such testing?

Mr. Palmer. There is a law, as I say. It comes under the supervision of the gas and electric light commission of the Commonwealth. Now, unfortunately, our gas and electric light commission is not paid by the State, but by a direct tax in addition to all other taxes assessed upon the corporation. We have the same thing existing in our board of railroad commissioners. Both boards are composed of splendid men, etc., but I think the principle is entirely wrong.

Mr. Goodwin. Do you have inspectors that any citizen can call on to inspect a meter?

Mr. Palmer. We have, presumably; but, as I say, I do not think the service is ideal, or entirely satisfactory.

We have a bill before the legislature in relation to the sale of coke. We sell large quantities of coke, and have established laws with relation to the sale of coke. This is simply an amendment to the general law, and provides that coke amounting in quantity to 100 pounds or more shall be sold or delivered in measured bags or baskets, as described in this section, or by weight, with the certificate of a sworn weigher, as provided in sections 87 and 88. It practically puts coke under the same provision as coal.

For the benefit of those who do not know, I will say that we have had for some years an organization of the local sealers of weights and measures of the Commonwealth, who style themselves the Massachusetts Association of Weights and Measures. We have annual or semiannual conferences in regard to weights and measures, similar to the conference we are having here to-day. We had our last meeting some time in January, while the legislature was in session, and

I think we had 92 present; so you see we had a good representative gathering from all over the State.

Our legislature is also considering an amendment to the bread bill, in which I know Mr. Haskell is interested. It provides that bread shall be sold by weight, in full or half loaves, and not otherwise. Briefly, it does away with the three-fourths and one-fourth loaves. We are confronted by this condition in Massachusetts. The bakers instead of selling a 32-ounce loaf, sell a 28-ounce loaf and call it three-quarters.

Mr. GOODWIN. Do you find any bread that is over 28 ounces?

Mr. PALMER. Very rarely.

We also have an amendment to the cranberry law, but I do not believe you would be interested in that.

Then we have another amendment which provides that the fees which are now charged for sealing weights and measures shall be done away with, and that all sealing of weights and measures shall be performed without cost. Personally, I am very much in sympathy with this. I do not know whether we are going to be successful in passing it or not. In a good many small towns there is objection to establishing salaried offices. Under the old statute the fees were very small, but we have never attempted to have the fees revised, for the reason that I hope eventually they will be abolished.

Our house bill No. 799 is a bill relative to marking articles of food sold in sealed receptacles or original closed packages. I do not know that we will be able to pass that bill. The State department made no recommendation in regard to it, although we did indorse the proposition last year. At the hearing last year it developed that almost all of the packers of the country and the canning people were against it. They came in swarms, with paid counsel, the best attorneys in Massachusetts, and did everything they could to defeat the bill, and they were successful.

I hoped that by this time the National Government would take up this question so that the different States would not have to go through this fight, which I know each one of them will have to, in case the matter is brought before their legislatures, because the manufacturers are well organized; they have immense capital and will devote a lot of time, money, and energy to defeating any legislation of that kind.

We have another amendment to our coke and charcoal bill. The law provides that local sealers of weights and measures can reweigh coal to ascertain if each load contains the required amount in accordance with the certificate which the driver is required to carry and which is signed by a sworn weigher. After coal is weighed the driver is required to return to the scale that the sealer may determine the weight of the vehicle, because the judge of the superior court

ruled that the horse was not a part of the vehicle. In some cases we have scales with platforms large enough to weigh the horse and wagon, in other cases only the team. I think our general coal law is a good one, but it has this defect and I think it will be remedied by the legislature.

Another bill provides for the use of paper bottles and jars. The Single Service Package Corporation is attempting to introduce into general use a paper milk bottle, this bottle to be used only once and then destroyed. It is their intention, I believe, to go into every State in the country where milk is sold in bottles. They are having their "try out" in the State of Massachusetts and the matter was referred to me for my opinion as to whether they could deliver milk that way under the present law. I told them they could not, and they went to the legislature and asked that the statute be changed. I am in favor of the bill, as I think the package a good one. I had hoped that one of the packages would be here to-day, but I believe Mr. Fischer says he has none. It is somewhat similar to a mailing tube, and the milk is placed in this receptacle. It is of cardboard coated with paraffin.

Mr. Goodwin. Mr. Palmer, may I ask you a question? From a sanitary standpoint don't you think that would be a good thing?

Mr. Palmer. I think so. I am highly in favor of it and so stated to the committee. We have also included in the bill a clause providing a penalty for refilling a bottle. I think you will all have this same thing brought to your attention in time. I have no interest in the sale of bottles of this kind, but I am very much in favor of the adoption of such a package.

Mr. Kemmerer. We have had that package brought up before the board of health and it was disapproved because of the fact that there is no way of seeing into it to find out what it contains. You do not know what the condition of the inside of the bottle is. It has been demonstrated by our board of health also that the bottles are refilled; that they have been refilled; and the question arising there was whether the paraffin on the bottle would not come off after it had been used once and whether the paper would not be in such shape as to contaminate the milk or whatever else might be put in the package.

Mr. Goodwin. Just one other question. I would like to inquire if there is a sealing process that comes with this bottle, so that once sealed it can not be used again.

Mr. Palmer. This bottle under our State law would be used under the same clause I referred to—relating to the manufacturers' seal. The manufacturer will say that this bottle has been tested and manufactured under certain conditions. As to Mr. Kemmerer's statement, that question came up in the State legislature. They had one of the finest bacteriologists of the country there and he showed some results as to tests which he had made with regard to these bottles,

and the committee was very favorably impressed with them. As I have already stated, it is an offense to refill bottles.

Mr. GOODWIN. Wouldn't this be a very good case for prosecution? If an inspector should take a bottle to his place of business and open it in the presence of some other person, and if it was found to contain impure milk, wouldn't that be absolute proof that the furnisher of that milk had violated the law?

Mr. PALMER. I should say so—prima facie evidence.

Mr. KEMMERER. There would be a question as to whether he bought the milk from somebody else or not.

Mr. PALMER. We have a force of inspectors who do nothing else but collect samples of food and drugs. Our supreme court has held that, regardless of whether a man has obtained the milk from somebody else, if the milk is below the standard, the man who sells the milk is responsible. Now, as a result of agitation, we have just adopted in the city of Boston an ordinance to the effect that milk can not be sold in open receptacles. It has been the practice for dealers to have a 10 or 15 quart can of milk and then fill quart cans from that, and the result has been that this measure would become loaded with microbes from lying on a dirty counter or some other place.

Another bill provides for a standard barrel of apples, and another for the bushel weight of certain commodities which have not already been established by law in our State. The merchants in our State are very much in favor of the adoption of a standard of weight for bushels of almost every commodity that they sell, and although the proposed bill does not include everything, it is a desirable addition. We have also another bill, which provides that all fruits, vegetables, and nuts, shall be sold by dry measure, weight, or count. I doubt very much whether that will pass. We are not as fortunate as Illinois; I believe Illinois is quoted here as having a State law.

Mr. KJELLANDER. That is merely an enabling act.

Mr. PALMER. Unfortunately, we have the Fruit and Produce Exchange of the city of Boston, a very powerful organization, against us on this measure, but I think within a few days they will come forward with some kind of a compromise measure and that we will be able to pass it.

House bill 188 is another bill on the same line.

That, Mr. Chairman, is a statement of the general legislation before us now and which we had last year.

The work of the State department has continued; we have gone on just the same except for one thing. I have a force of four inspectors, who make inspections of weights and measures with regard to the enforcement of the law by local officers, and also look out for the enforcement of the laws against false weights and measures. It has been our practice heretofore simply to make records, and when the

inspector returns to the office, which he sometimes does not do for a week, he will submit a detailed report of the conditions in certain towns, and also a detailed report as to the places where he made examinations. Under this system, when I get around to write the local sealer in regard to violations the inspection is sometimes two or three weeks old. Recently we have adopted a triplicate system of inspection blanks. One of these blanks bears the coat of arms of Commonwealth and is signed by the State inspector. This copy is left with some individual at the store or wherever the inspection is made. Under the old system the inspector would leave word with some clerk; the clerk repeated the message to his employer, or sometimes he would forget to do it, and as a result, in a good many cases, the efficiency of the inspection force was a great deal hampered by the fact that the proper person did not receive the notice. The remaining blanks are returned to the State department every day. One is kept as a record in the department, and the other, which is on tissue paper, is sent to the local sealer. His attention is called to the violations of the law, and he is requested to attend to whatever details are necessary and make a report to the State department at once. The new system has worked wonders with us. It shows that the department cooperates with the local sealers of weights and measures. The local sealer likes it, because it shows that somebody else is interested in his work; and the moment a man gets this notice he takes the scale, or whatever it is, and goes to the local inspector's office.

We have had this system in operation about 35 days, and it has accomplished more, I think, than inspections made in any two months under the old system.

I think, Mr. Chairman, that those are the general conditions of Massachusetts, and that is all I have to report at this time.

Mr. KJELLANDER. Mr. Chairman, let me say just one word. I believe that the law of Massachusetts, so far as milk bottles are concerned, is no longer possible of enforcement. I think all laws of a similar nature are impracticable. Just think, if it should be required in Chicago or New York that a sealer test and seal all of the milk bottles! Why, it would be an impracticable task. You could not do it without hundreds of men. Now, in Massachusetts and some other States they say, "Let the manufacturers seal their own bottles." Isn't that absurd when you come to think of it—to trust those fellows with sealing their own bottles? They can not be trusted, in my opinion. We have had experience in that way, and they can not be relied upon. They do not want to be fair on this matter. They never showed any fairness; at least they did not show it to me.

If a man selling milk does not give full measure he is clearly guilty of a violation of the law; and if you prosecute him—be the concern

ever so big—and obtain a conviction, that concern is going "to come to time." It is not going to be bothered and brought into court repeatedly, but it is going to require bottle dealers to deliver bottles that are not short in measure. I think that is the method that we should pursue, even though it may seem a little harsh to start in with—to hold the man that sells the milk.

In the original package business, for instance, suppose that the manufacturer of cartons for breakfast food does not make them large enough. Ought we to hold him? We ought to hold the manufacturer of the breakfast food, not the manufacturer of the carton. So I think you are on the wrong track in this matter.

Let me ask you a question for information, Mr. Palmer. How have you succeeded with your berry boxes, and how do you handle that business? Do you have standard size boxes?

Mr. PALMER. Our law provides that berries shall be sold in standard quart, pint and half-pint packages. Massachusetts is the pioneer in that, and unfortunately we encountered all kinds of difficulties. A great many berries for the Massachusetts trade come from the State of New York and we have the present New York law to contend with. The present law, as Dr. Reichmann will probably tell you, allows a variation of 7 per cent below or above.

We have had considerable trouble with milk bottles, and I want to say, Mr. Kjellander, that I am heartily in favor of your suggestions about that, but unfortunately I can not make the Massachusetts Legislature believe as I do. You understand that there is an immense number of bottles used in Massachusetts. I have almost every dealer and every bottle manufacturer against me on the under-tolerance question, and they are pretty well organized. I only hope that I will get an opinion from Dr. Stratton to the effect that the Massachusetts law is unconstitutional, and then I think we will begin to "cut a little ice" over there. I do not think it is constitutional.

Now, as to the berry-box law. That law has been on the statute books for three years. We have had some convictions in the courts. But Massachusetts raises comparatively few of the berries we use. The majority of the native berries come late in the season; in the early part of the season we get them from Florida, South Carolina, etc., and the shippers are in the habit of sending almost any kind of a box they see fit. The dealers come to us and say: "We can not make the people in South Carolina adopt a standard box. If we should insist upon it they would say, 'Well, we won't send our berries to Massachusetts; if you do not want this kind of box we will send them to New York, Rhode Island, or some other place.'" There are hundreds of thousands of dollars tied up in this business in Massachusetts, as Boston is the distributing point for almost all States north of Massachusetts, and even some parts of Connecticut and

Rhode Island. Last year we got comparatively few short boxes. I have talked with the members at several meetings of the Fruit and Produce Exchange, and they have adopted resolutions in favor of a bill which is now before Congress which was introduced, I believe, by the Trade and Commission Men's League. It is a bill providing for uniform fruit packages. The day before I came away we had a basket sent from South Carolina, and one of those commission men in Boston, a man who receives anywhere from 15 to 20 carloads of berries a day in the season, came to me and said: "I have been doing my very best"—I threatened him with prosecution last year—"to get a standard quart basket, and to be able to guarantee a standard quart basket from the different places from which I receive berries. Here is a basket which has been submitted to the New York authorities and they said it was all right, but I am not entirely satisfied with it." I tested the basket and found it to be $2\frac{1}{2}$ cubic inches short. To be sure, that is only a small amount, but the point is this: If we said that was all right we would get ourselves into trouble. As I told him, we have no right, and no local sealer has a right, to set aside the requirements of the Massachusetts statute, the purpose of which is to give a certain number of cubic inches to a quart, and no basket containing less than that can be legally used in the Commonwealth. Undoubtedly, some cases may get by us, but if complaint is made to us there is only one thing to do, and that is to prosecute. They come to us with the same story that the Massachusetts requirements are too arbitrary; that there is no other State in the Union which asks them to do this thing. But I think this year we will have fewer short berry baskets than ever before. As a rough estimate, I do not believe we got over 15 per cent of short boxes last year.

Mr. KJELLANDER. Don't you think it would be feasible to sell berries and fruits and everything of that kind by weight?

Mr. PALMER. I do not think it would meet with favor in Massachusetts. They do not want to handle berries any more than they have to.

The CHAIRMAN. It is done almost entirely on the Pacific coast.

Mr. KJELLANDER. We have had berries shipped from the State of Washington to Chicago with the weight marked on the box, and we weighed the berries after that long shipment, and found that they weighed a pound or a trifle over.

Mr. PALMER. What kind of berries were they?

Mr. KJELLANDER. They were blackberries.

Mr. PALMER. Well, a blackberry will hold its weight better than a strawberry.

Mr. KJELLANDER. Of course.

Mr. PALMER. Now, they object very much in Dr. Reichmann's section to the provisions of this bill in regard to the shipping of raspberries. They ship sometimes 10 or 15 carloads a day to Boston, and

they object to the enforcement of our law. They say they should have a third of a quart box, because they can not ship in pint boxes; the berries crush of their own weight.

Mr. KJELLANDER. They could make them a little wider, couldn't they? It doesn't make any difference where they have the bottom in the box, as long as it holds a pint or a quart.

Mr. PALMER. You understand they have thousands of dollars tied up in standard crates, and the standard box would not fit those crates. The crates, as you probably know, are used over and over again. I hope Dr. Reichmann will be able to persuade his growers that they should use a standard quart basket.

The CHAIRMAN. I would like to ask Mr. Palmer if he has submitted that question to his own legal department.

Mr. PALMER. No, sir; I have not. I wanted it to come through this office first.

The CHAIRMAN. It is not barely possible that it might be settled in your own legal department?

Mr. PALMER. I would possibly not have as much confidence in the opinion of my own legal department.

The CHAIRMAN. What would happen if the United States Attorney General's Department, or the solicitor of our own department, or any of our legal officers, should say it was unconstitutional?

Mr. REICHMANN. It would have no standing whatever.

The CHAIRMAN. It would have no standing whatever. You simply want the moral effect?

Mr. PALMER. Yes; simply the moral effect.

The CHAIRMAN. We have a representative of the solicitor of our department here to-day, Mr. Wixson, and I will ask him to give us his views on the question.

Mr. WIXSON. You have stated the whole case, I think. The department takes the view that there is no Federal law involved, and for that reason is averse to expressing an opinion. There is no statute under which the Department of Commerce and Labor can take any steps in the matter, and the department is of opinion that it can not with propriety give formal expression of its views with respect to a question which does not arise under any law which it is required or authorized to administer.

Mr. PALMER. Let me ask a question here. Has the United States by any act established a standard quart?

Mr. WIXSON. I understand that such a standard has been adopted by the United States.

Mr. PALMER. Has any State the power to establish any other quart than that which the United States has established, or to sell as a quart anything which is different from what the United States establishes?

Mr. WIXSON. That may raise a pretty close question, but I am inclined to think, in view of the meager legislation by Congress, that a State might legally do something in that direction.

Mr. PALMER. That they have the right?

Mr. WIXSON. I am inclined to think so. This does not mean, however, that a State could substitute other measures for use in affairs pertaining to the Federal Government.

Mr. KJELLANDER. Where would we get our standards from then?

Mr. REICHMANN. That is just the point.

Mr. WIXSON. There certainly is no provision of Federal legislation which imposes a penalty for the use of any other measure than the standard adopted by the Federal Government. There is no way at present of enforcing the use by the States of the standard. Of course, a law which does not provide a means of enforcement is impotent, and that is the condition of the law, I think, so far as Federal legislation goes. It should be understood that what I may say in this connection can be of importance only in respect of the power of the department to undertake to act in the premises.

Mr. PALMER. Mr. Chairman, this opens a very important point to me, the fact that our standards are not standards; for that is what it practically amounts to.

Mr. WIXSON. A resolution of Congress in 1836 directed a distribution of the standards to the States with a view to uniformity. Beyond this there has been no general legislation upon the subject.

Mr. KJELLANDER. The Federal Government fixes the standard gallon, does it not?

Mr. WIXSON. That is my understanding. Congress has expressly provided that the word "gallon," wherever used in the internal-revenue laws relating to beer, ale, and other similar liquors, shall be held to mean a "wine gallon."

Mr. KJELLANDER. Congress did not fix any other standard than the standard gallon, but I do not think the law says for what purpose that was fixed.

Mr. WIXSON. Oh, no. There can hardly be any doubt but that the purpose of the resolution was that the standard gallon should be used in all cases; and the act defining the word "gallon" as used in the internal-revenue law, was doubtless merely declaratory of this general policy; but in the present state of the law it is idle of course for the Department of Commerce and Labor to undertake to regulate the subject or to question the legality of a State law relating thereto.

Mr. PALMER. Mr. Chairman, it seems to me that that is a very important thing, and I hope that before this conference adjourns it will take some action in the matter, possibly by adopting a resolution with a view to having the matter brought to the attention of Congress,

and, if nothing more, to have the subdivisions of the gallon, quart, etc., legalized by act of Congress, so that if this difficulty does arise, which it is bound to do in the enforcement of these statutes, all controversy of that kind can be avoided.

The CHAIRMAN. Mr. Palmer, it is not a question of legalizing; it is a question of what you are going to do when a person does not use the legal standard. Now, there is no question in my mind but what Congress adopted directly all these standards. They are legal standards. But what are you going to do under the law if somebody uses other than the legal standards? That is the thing that is not provided for. It is not penalized, and that is the great question. If by any means you can get Congress to adopt a law making it an offense to use false weights and measures anywhere in this country you will do a great thing; but, at the same time, it means taking this entire matter over into the hands of the Federal Government rather than leaving it to the States.

Mr. KJELLANDER. Is it not true that there never has been a standard adopted so far as dry measures are concerned, and that the standard we are using is merely a standard by usage or custom?

The CHAIRMAN. I hardly think so. That is a debatable question. However, it seems to me that when Congress directed the Secretary of the Treasury to furnish the States certain standards, it by its action made them legal.

Mr. KJELLANDER. Probably that is so.

The CHAIRMAN. Indirectly. That is the only interpretation you can put upon it.

Mr. HAZEN. Mr. Chairman, I would like to ask a question for information. Does not the Federal Government have jurisdiction over any interstate commerce?

Mr. WIXSON. Yes.

Mr. HAZEN. Now, then, if one State ships berries into another State under false measure would not the Federal Government have jurisdiction over that?

Mr. WIXSON. Whether the matter can be approached from that angle or not I am very certain that Congress has plenary powers under its constitutional authority to fix the standards of weights and measures, but it has not as yet exercised these powers in a manner to justify affirmative action by the department in such a case.

Mr. HAZEN. I was asking for information.

Mr. WIXSON. I am aware of no statute under which the department can take cognizance of such a transaction. In pursuance of the resolution of Congress most if not all of the States adopted the standards, the distribution of which was therein directed.

Mr. HAZEN. It seems to me that that is the pith of this whole matter—that while each State has the right to adopt a pound of 14

or 18 ounces, or a quart of different cubic measure, and use it in that State, irrespective of the Federal law, the minute it began to use those weights and measures, different from the standard weights and measures, in interstate commerce then the Federal Government would have jurisdiction. That, perhaps, is where I am mistaken, but I supposed that the only way this matter could be reached would be through interstate commerce, and that all that was to be done by this conference was based on that theory.

Mr. WIXSON. It may be added that the Attorney General years ago held that the word "gallon," as used in a statute relating to the duty to be assessed on importations of ale and porter, was to be understood as meaning a "wine gallon" of 231 cubic inches, and not the gallon of what was once designated as "beer measure," which contained 282 cubic inches. The question was brought up by importers in New York, and in discussing the case the Attorney General adverted to the fact that the only gallon measure distributed by the United States under the resolution of 1836 was that containing 231 cubic inches, and also pointed to the fact that the State of New York was among those expressly assenting to those standards. It is a fair inference, perhaps, that the acceptance by the State of this standard (the "wine gallon") was deemed a consideration of some consequence in reaching the conclusion announced. And the United States circuit court in Massachusetts, in a case in which a similar question was involved, expressed its approval of both the reasoning and conclusion of the Attorney General.

It may be proper to add in further elucidation of the subject, as I understand it, that the power to fix the standards of weights and measures, while granted to Congress by the Constitution of the United States, has never been expressly denied to the States. It is not the grant of power to Congress, but the actual exercise of the power by that body that makes its action exclusive. Hence, the States may exercise this power so long as Congress fails to do so. Should Congress conclude to occupy the field, however, any conflicting State legislation would thereby be rendered void.

Mr. PALMER. Yes. But, Mr. Chairman, would not a bill introduced in Congress providing a penalty for the use of weights and measures other than those which have been adopted take care that situation?

The CHAIRMAN. Yes; it would take care of it entirely. But it must penalize; that is, it is of no use to specify what constitutes an offense unless you also fix a penalty.

Mr. PALMER. It seems to me that a bill of that kind could not fail of passage if it were brought to the attention of Congress.

The CHAIRMAN. And, furthermore, our legal department has ruled that it is entirely proper, as I understand it, to introduce such a bill;

that we have precedent, and that it would not interfere with State rights. But this other matter is one which Congress has been very much opposed to taking up; that is, it tries to draw a line between the duties of the Federal Government and the so-called police duties of the States. Congress looks upon this enforcement of the use of the standards in localities as police duty, and holds that it should be left to the State. I do not quite agree with Mr. Hazen in his interpretation of the interstate commerce act; I do not believe any State would have the right to adopt a 14-ounce pound, but I do think that Congress would have the right, according to the Constitution, to say what weights and measures should be used in interstate commerce, and not feel that it was interfering with the police duty of the State or localities. In fact, so far as I can distinguish between National and State legislation, National legislation is usually hinged upon one of two things—interstate commerce, or the collection of our revenue—and Congress is very loath to take up any laws affecting local matters which are not concerned in one or both of these things.

Mr. Goodwin. Mr. Chairman, does not the fact that a State uses the standards furnished by the Government establish the fact that those are the legal weights and measures of the State?

The Chairman. As far as I am aware, every State has made them legal. Is not that so, Mr. Fischer?

The Secretary. So far as I know.

Mr. Goodwin. Then they must have the legal weight of both State and Government?

The Chairman. Yes.

Mr. Reichmann. Mr. Chairman, this discussion was on the milk-bottle proposition, but I want to interrupt and talk about the berry-box proposition that Mr. Palmer spoke of, because he reflected upon the berry-box law of the State of New York, and spoke of how beautifully they were enforcing their law in Massachusetts.

Up to last year we had a berry-box law requiring berry boxes to be a quart, pint, or half pint, and if not, they must be marked on the outside thereof with the word "short." That, of course, is absolutely no protection to anyone, because nothing being stated beyond "the outside thereof," naturally they all marked them on the bottom. So last year I wanted to get that bill amended and have only standard quart, pint, or half-pint sizes, but it was amended in the committee, through pressure brought by the berry growers, to allow a variation of 7 per cent, which we have interpreted to mean below or above. Now, if we find a man with 16 boxes all short, we hold him up on them, and all those boxes that he did not use are shipped to the State of Massachusetts and sold there. Moreover, I do know, from any number of growers in South Carolina, that they are shipping

short boxes into the Boston market, and Mr. Palmer knows that they are coming in there. A gentleman down in the Hudson River district wrote to Mr. Palmer about them and also to me. He was one of those appearing in Albany in favor of the bill, and he subsequently wrote me saying that it did not make any difference if he did have any of these short boxes left from last year, as we would not allow them in our State, and he had made arrangements to market them in Worcester and Springfield. Understand, we are enforcing the berry-box law in the State of New York and getting after the manufacturers of the boxes, and not only the manufacturers in New York State, but we are warning every manufacturer in the United States and the commission merchants throughout the South and Southwest not to ship these boxes, and have induced a great many commission merchants to send full-sized boxes to their agents in North Carolina and Virginia and some as far as Louisiana.

Mr. KJELLANDER. Suppose the box is manufactured somewhere else?

Mr. REICHMANN. We can not touch them. We can stop them manufacturing in the State of New York, but if they are manufactured by any of those other concerns outside of the State, we can not touch them until they are actually sold in the State of New York. Let me give you an illustration: A prominent manufacturing company of Virginia sells berry boxes through their agents in Brooklyn. Now, some of those were short, but all the business went directly to the factory; consequently we could not hold the agents, but I had one of the inspectors watch where those boxes were delivered to the grower and then held up the grower when he sold the boxes. You see we got after the man's customer, and when you once get after a man's customer he will never have that customer again.

Mr. KJELLANDER. Suppose the berries are from other States, and the boxes also from other States?

Mr. REICHMANN. It does not make any difference. The State has absolute police power in regulating the sale of commodities within its territory. I can not do anything until they begin to sell them there, but I can hold the man who sells them.

Mr. KJELLANDER. That is what I wanted to get at.

Mr. REICHMANN. That is clearly the intent of the law.

Mr. HASKELL. Going back to the milk-bottle question: We are here as a kind of school of education, to gather ideas from different sections. We had a great deal of trouble here in the distribution of milk in bottles a few years ago. Ninety-five per cent of the milk bottles used in the District of Columbia were short from 1 to 2 ounces. We took a case into court and we had the court establish that the milk bottle was a measure, and then found that we had gotten rid of our trouble, because we find that if a man who is purchasing a quart of milk does not get a quart, the dealer is liable to

prosecution; and the consequence is that to-day, instead of having 95 per cent of our bottles short, it is exactly the reverse. I do not think that there is in the District of Columbia 5 per cent of the milk bottles that are not standard size; and this simply because we established the fact that a bottle is a measure; that if a person orders a quart of milk he is supposed to get a quart of milk, and that if dealers were selling milk in a short bottle they were using short measure.

It is exactly the same with the berry boxes. The only trouble that we have had is that people are so in the habit of asking for a basket of berries, expecting and supposing that it holds a quart, just as they are in the habit of asking for a loaf of bread, expecting it to weigh a pound. So that we have had some trouble with people going to places of business and simply asking for a basket of berries. They do that with the full confidence that the basket holds a quart. We have made a number of cases by requesting people to ask for a quart of berries, and when the dealer hands out measures that are not of full capacity, we prosecute him, and the consequence is that the conditions here as to berry boxes are satisfactory.

Mr. PALMER. Mr. Chairman, I would like to ask Mr. Haskell if he seals milk bottles.

Mr. HASKELL. We do not; because it would be practically an impossibility. It is the same way with flour. Our law requires that all flour shall be inspected and branded. We have cars of flour coming in here containing seven, eight, or nine thousand sacks. To brand that flour would be practically impossible. We could not do it, and consequently the matter has been practically dropped. We do not inspect the milk bottles.

Mr. PALMER. If milk bottles, as you say, have been construed by your local judge to be measures, and the law provides for the sealing of weights and measures, why are you not liable for breach of trust for not sealing those? That question would be raised in the State of Massachusetts in a minute.

Mr. REICHMANN. Your law requires you to seal all weights and measures?

Mr. HASKELL. It requires that all weights and measures used in the District of Columbia shall be sealed; that is true. But as we construe it, the law did not expect or require us to perform impossibilities.

Mr. KJELLANDER. But you have no right to construe the law except as it is. The courts construe the law.

Mr. HASKELL. I admit that.

Mr. KJELLANDER. What good is it to adopt a law providing for the sealing of weights and measures, if you do not obey it?

Mr. HASKELL. We have established through the courts that a milk bottle is a measure. Now, if we pick up bottles, as we do very often

on the street or in other places, and find that they are short, we prosecute the man for selling short measure. We do not prosecute him for using a measure that is not sealed and stamped, which our law requires, but we do prosecute him for short measure.

Mr. REICHMANN. Mr. Haskell, do you mean to tell me that you have had cases of that kind and no attorney has raised the question as to whether you were performing your duty?

Mr. HASKELL. We have had a number of cases.

Mr. REICHMANN. But no one has ever brought up that point?

Mr. HASKELL. No, sir.

Mr. REICHMANN. We ought to send some of our New York lawyers down here.

Mr. HASKELL. We do not file our information for using a measure that has not been sealed. We file our information for selling short measure, and our law against short measure is just as severe as it is against using a measure that is not sealed. Do you seal all the milk bottles in New York?

Mr. REICHMANN. No, sir; it would be a physical impossibility. One company alone, selling 10 per cent of the milk in New York City, uses over 7,000,000.

Mr. HASKELL. It all comes out the same way.

Mr. REICHMANN. Oh, but we have no statute or law of that kind.

Mr. THOMAS. Mr. Chairman, I have been much interested in this discussion. This subject has been one of the common questions coming to my attention in Ohio. I bring it up in connection with Massachusetts, because I have an interstate-commerce case and Massachusetts is involved. An Ohio citizen bought goods in Massachusetts for delivery and consumption in Maine. The citizen is myself. Last summer, on my way to my summer home at Squirrel Island, Me., I stopped as usual in Boston and ordered a supply of food of one sort and another from a reputable firm. Among other things, I ordered a 5-pound pail of lard. When I unpacked the goods, I was interested in finding this tag attached to the pail: "The price of this pail of lard (in very large letters) is 51 cents. It is not ('not' in extra large letters) sold by weight." That is selling by package and not by standard weight or measure, and it was interesting to me to learn what was going on in Massachusetts under the weights and measures law, when I found so prominent a concern doing this in order to escape liability from laws regarding weights and measures which are in force in Massachusetts.

Now, a question was brought to my official notice in Ohio involving the same principle, and it happened to be in connection with berry boxes. I was asked by a local authority whether dealers in berries had a right to sell berries by the box instead of by the quart. In connection with the advice of a local sealer in one of the cities there,

who held that berries could only be sold in quart or pint boxes, I carried the question to an attorney, who answered me to this effect: That the sale of berries in such boxes, or in any sort of box whatsoever, was lawful; that under the laws of Ohio it was impossible to prevent any such sale, because the question, if raised, would lead to a decision that such attempt to restrict the sale of berries to quart boxes, etc., interfered with the freedom and personal liberty of contract between individuals; that when a dealer offered berries for sale in a box and charged so much a box for them, and the citizen accepted them, it was a perfectly lawful transaction that could not be constitutionally interfered with in Ohio. "But," he said, after consideration, "it is perfectly possible to get around that difficulty by an act of the legislature, or an ordinance passed by the city council, which would read something like this: 'For the purpose of avoiding misrepresentation, misunderstanding, or fraud in the sale of goods' (we will say berries, to fit the particular case), 'it shall be unlawful to sell such commodities in receptacles or containers other than those whose capacities conform to the established standards of the State.'" "Such action," he said, "is possible and perfectly lawful on the part of either the State legislature or any city council, for the reason that such action would merely be an exercise of the police powers which the Constitution lodges in the States and in municipalities by delegation from the State."

That, it seems to me, is the solution of this whole question of package sales of any sort whatever. That principle, you see, will underlie every one of them, and the question as to the introduction of a bill or of a section of a bill to this effect in our legislature, now in session, is under serious contemplation. The passage of an act like that would immediately remove all trouble with regard to the sale-by-package question in Ohio. I do not know how it would be in other States, but it fits our case.

In raising the question as to berries, etc., I took the ground which has been stated by Mr. Haskell with reference to the milk bottle, that the box in which the dealer sold his berries was being used as a measure; that the basket in which the dealer sold peaches, grapes, etc., was used as a measure. I said, "What does the packer or dealer do when he uses such a box?" He takes the empty receptacle, proceeds to fill it with the commodity, and when the basket is full he determines that he has put into it the amount of commodity that is to be sold for a certain price. He is himself, in fact, using that receptacle as a measure.

Mr. KJELLANDER. He is not using it as a measure, but as a guess, is he not?

Mr. THOMAS. No; he does really use that as a measure if he is honest with himself; he is not guessing. He is using that basket as

a measure of the quantity of the goods which he will give the purchaser for that price.

Mr. KJELLANDER. But all of these baskets, Mr. Thomas, are not alike; they vary.

Mr. THOMAS. They will vary some, but not very much.

On the question of selling berries, it was reported at a meeting of the sealers in Columbus that certain city sealers had ruled absolutely that berries should be sold by standard dry measure only, and not by the basket; and I have been informed that dealers, original packers and shippers of those goods, often make inquiry of the distributors in our Ohio cities, six months in advance, as to what sort of a basket will be allowed to be sold, and shipments have been made in accordance with the requirements. During the past year parties have shipped berries from the South to the commission merchants in Columbus in standard quart baskets. The commission merchants have sold to hucksters in those baskets; the hucksters have then taken their loads around into an alley, and proceeded to empty the berries from the standard quart baskets into the short baskets with which they had provided themselves, and then have gone out and sold them.

It seems to me that if this bill which was presented before the executive committee yesterday and considered by it, and which has yet to be considered by the conference, can be enacted into law, it will get rid of all this trouble. The minute you make it impossible for manufacturers to make unlawful measures, you cover the whole situation and do away with the trouble.

Mr. PALMER. Mr. Chairman, the tag that Prof. Thomas found on the pail was the result of a little inspection we had in Massachusetts. We found that the general practice was (and I presume it was so all over the country) to use pails supposed to contain 3, 5, and 10 pounds of lard, when as a matter of fact they did not weight 3, 5, and 10 pounds gross. The concern referred to is one of the most reputable in the State. It sent a representative to me, and we talked it over. He said, "We are in this helpless position. We have asked packer after packer to give us net weight lard in 3, 5, and 10 pound packages, and they will not do it."

Mr. REICHMANN. Excuse me; dealers can get it if they want it.

Mr. PALMER. It was brought out at the time that a certain packer was accredited with giving full weight, but, as a matter of fact, we found that he did not do so.

The representative of the Boston concern conferred again with two of the largest packing houses in Chicago, and the treasurer of one concern and the president of the other were sent to Massachusetts, and they had a long conference. They said that Massachusetts was the only State, with the exception, I think, of Nebraska, or North Dakota, or one of those States, which was exacting any requirement

of this kind, and they absolutely refused to provide a special package for the State of Massachusetts.

They asked my opinion as to whether they could sell these pails of lard as "No. 3," "No. 5," and "No. 10." I had my mind made up that they could, but I did not tell them so. They got an opinion from their counsel that they could sell them as No. 3, No. 5, and No. 10. They are not doing it in Massachusetts, but they are in other States. There is no concern that will give a guaranty, that is, at a reasonable price, so that dealers could enter into competition with other dealers and sell them as 3, 5, and 10 pound packages of lard.

Mr. KJELLANDER. Did these gentlemen tell you that there was no other State that asked them to do it?

Mr. PALMER. None that required them to do it.

Mr. KJELLANDER. That goes to prove that they are not telling the truth, because all those packers have been to see me, and I have asked them to do it. I tried to get a law passed, but I could not because they fought it.

Mr. PALMER. You misunderstood me. I said "required them to do it."

I found some figures like this: "1/12, 3, 11." That was the wholesale price of a pound of lard. I asked them, "What is the '1/12' there for?" They said, "One-twelfth of a dozen." I said, "What is the '3'?" They said, "That is No. 3 lard." I said, "What is the '11'?" They said, "Oh, that ought not to be there; that is a mistake."

The fact of the matter is that those cans contain 2 pounds and 7 ounces of lard and 9 ounces of tin. Just as much is charged for the tin as for the lard; and, of course, the people can not eat the tin.

Mr. HASKELL. What is the inference to the public when a can is marked "3," "5," or "10"? Is it not 3, 5, and 10 pounds?

The CHAIRMAN. Certainly.

Mr. HASKELL. If you go into any court and establish that a person went into a store and bought what he supposed to be 3 pounds, and was marked "3," whether the word "pounds" was on it or not, the court will sustain you.

Mr. KJELLANDER. I beg your pardon. We tried it in Chicago and we lost.

The CHAIRMAN. The next State on the list is Michigan, represented by Mr. Albert E. Sleeper, State treasurer.

Mr. SLEEPER. Mr. Chairman, I will not say very much, but I will say that our law is an old one, having been passed some time ago, and there is no provision for inspection, or, rather, no provision for the payment of inspection, and therefore the inspection has been rather poor. I understand that in the cities local ordinances govern inspection and that it is quite well taken care of in that respect.

The law of the State makes the State treasurer the State sealer, and authority is handed down by him to the county clerks, and from the county clerks to the township clerks. The county clerks in a large number of counties have no proper scales, and a great many of the townships are in the same position. So I am sorry to say we are a little lax in that respect.

We had a bill introduced in the last session of the legislature, which we did not get through; but we hope to do it at the next session.

We have quite a fruit-growing country. We send whole boatloads over to Chicago, and I suspect, perhaps, we have sometimes kept the full quarts at home and sent the halves over there. But we have been pretty busy in Michigan during the last two or three years making automobiles, and we have had very little time to take care of the weights and measures law. But if you will give us a little time, I think perhaps in the future we will be able to evolve something that will be satisfactory.

The CHAIRMAN. The next is Minnesota. We have four representatives from that State. I do not know that there is any particular order in which they shall be called upon, so I will first call upon Mr. C. R. Dinehart, State treasurer.

Mr. QUIST. Mr. Chairman, Mr. Dinehart had an appointment at the Treasury Department between 3 and 4 o'clock this afternoon, and begged to be excused at the conference. He requested me to say, however, that he was very much interested in this work, and that he would do all he could toward placing such laws on the statute book as were recommended by this conference.

The CHAIRMAN. Have the other representatives any report to make?

Mr. QUIST. Mr. Chairman, I have prepared a short paper on the subject in which I am most interested, namely, the handling of grain in Minnesota.

The CHAIRMAN. I am sure we will be glad to hear it. Mr. Quist is State weighmaster for Minnesota.

Mr. QUIST. I will read it to you; it is not very long.

In Minnesota, one of that wonderful group of States that might aptly be called the harvest field of the world, we have for almost 25 years been developing and perfecting a system of weighing accurately the products of our farms, so that when the countryman sends his store of grain to the terminal market he can rest secure in the knowledge that his interest will be taken care of by a bonded State weigher as experienced in weighing as the representative of the terminal miller may be. As long as there exists in human nature the desire to obtain something for nothing there will always be conflict between buyer and seller; and to guard the interests of the producer of grain, who

obviously can not be on hand to see his product weighed or measured, the State of Minnesota maintains an organized weighing and inspection department under the control of the State railroad and warehouse commission. This system has been in operation since June 1, 1885. Previous to its establishment the control of inspection and weighing was vested in the commercial bodies in the State, the members of which bodies chose each year the official inspectors and weighers by ballot. The fact that the membership of these commercial organizations was made up almost exclusively of the buyers of grain led to the belief that the inspection and weighing were arbitrary and unjust to the producer and country shipper and altogether in the interests of the miller and terminal warehouseman, thus causing a great deal of dissatisfaction throughout the State.

In Minneapolis alone there are 74 grain elevators and flour mills where the State supervises the weighing, each weigher being a man trained for the work and giving a surety bond for the amount of $5,000. The scales used are modern and equipped with a registry device for stamping the weight upon a card, which stamped ticket or card serves as a check against error at the time of taking the weight, and is carefully preserved for any probable reference afterwards. Scale experts are employed whose sole duties are to adjust the scales on which the official weights are given. These scale experts are also under a bond of $5,000, and their work is under continual scrutiny by the State weighmaster, who is enabled to learn even before a test is made, should a scale get out of order, for, with several hundred carloads each day, any variation would be apparent at once. In this connection it might be well to state that the department is not satisfied with the results of weighing at the terminals if the variation locally exceeds one-twentieth of 1 per cent; and this amount is not all the result of scale variation, as it also takes care of the natural shrinkage in the handling of grain. Hence it must follow that the many scales involved must be accurately adjusted and maintained in perfect order to secure these close results.

The aggregate tonnage handled over the scales in Minneapolis is enormous, when it is considered that in one of the recent years there were weighed 259,996 cars of grain, equaling 252,043,924 bushels. Allowing 40 feet as the length of each car containing this grain, it would make up into a solid train extending from New York City to a point 232 miles west of Bismarck, N. Dak., and each car would contain more grain than is produced by the average Minnesota farm.

While I do not contend that Minnesota is the only Commonwealth that has accomplished much by means of State supervision, I do strongly urge before this conference the absolute need of State intervention between rural producer and urban receiver, such supervision to be based upon bonded responsibility, undoubted integrity,

and strict examination for ability, applying to each member of such organization of supervision. And even with what has been accomplished by State supervision, running through the experience of almost a quarter of a century, I feel that we have only begun the work. Outside of the railroad equipment and railroad track scales throughout the State, there is no system of inspection of weighing devices. Hence a great variation may exist without the fact being discovered until too late for justice to produce its evidence, or until rascality has had time to cover its tracks. It is true that three large cities in Minnesota, by means of city ordinances, aim to maintain a system of supervision of weights and measures which undoubtedly accomplishes much good, and is a step in the right direction; but usually, because of the limited authority behind them, the efforts of city sealers of weights and measures are proportionately limited. It has always been a recognized fact that efficient service is not likely to be secured from men who, holding one important office, are charged with doing work wholly foreign to that office. Hence under a system, as in Minnesota, where the State treasurer and the county treasurers are not only the custodians of the prevailing standards, but are also expected to handle the technical part of the question as well, it must be evident to all that these officers can not be fitted, as a whole or in small part, to perform the exceedingly accurate work required from a skilled sealer. Under such a system there can be no doubt that great laxity exists in an effort to maintain proper standards, and that of the many devices used for determining the quantity the majority would not stand the proper test. Whether this is caused by lack of understanding, carelessness, or dishonesty, we should not hesitate long to apply a proper remedy.

I have been much interested in the suggestion sent me by the National Bureau of Standards, and realize that much thought must have been given to the subject treated therein; and I fully believe that if the suggestions as to supervision of weights and measures are carried out it requires then but conscientious effort and competency on the part of any bureau or commission that may be established for the purpose to bring about justice between man and man in the all-important matters of weights and measures. I thank you, gentlemen.

The Acting Chairman (Mr. Palmer). Mr. Quist, when this State system of weights and measures was established, do you know whether any other subject was considered?

Mr. Quist. No, sir. This department has supervision only of grain, and it is under the direction of the railroad and warehouse commission.

The Acting Chairman. I wish to ask a question. We are interested in flour in Massachusetts, and considerable controversy has

arisen between the State department of weights and measures and some of the largest mills in your section. Is there any supervision, that you know of, over the scales used for weighing the bags and barrels when being filled with flour?

Mr. QUIST. No, sir; we only weigh the grain and have nothing to do with the flour.

Mr. NEALE. Mr. Chairman, allow me so say that there is a supervision, brought about by the efforts of the city sealer. He has the privilege of checking any shipments he may wish to, and is also charged with the duty of checking the scales.

Mr. QUIST. I was not aware that that came under his jurisdiction.

The ACTING CHAIRMAN. The next gentleman is Mr. Charles Neale, scale inspector for the State railroad and warehouse commission.

Mr. NEALE. Mr. Chairman and gentlemen, Minnesota is represented pretty well, in numbers at least, and I have not the honor even of being an officer of the State nor sealer of weights and measures of a large city, but, having earned my bread and butter for 19 years in that which appertains to weight and measure equipment, I naturally would be vitally interested in all that pertains to it. I believe that subject is well taken care of by the men who have it in hand here, but I do want to introduce before this convention a matter on which I have written a few remarks.

I desire to place before this convention a matter that must ultimately be recognized and dealt with by Federal or State authority wherever the matter of scales and weighing machinery is given serious thought or comes under any supervision tending to secure correct results. I refer to the fact that all scales manufactured today of the adjustable lever type can be manipulated to weigh more or less than standard or true weight by anyone so inclined, without any possibility of establishing proof that such tampering with the leverage of the scale had been done with the intent to commit fraud or otherwise.

What I want to bring out is that, as the matter stands at the present time, unless some means is adopted to make the term "sealing a scale" mean something, by the use of some device to give evidence if the scale leverage has been tampered with, our efforts to adjust scales to a given standard and maintain them so fail entirely to accomplish the intention.

The fact that scale manufacturers for the past 65 years have been turning out scales from their factories without any means being provided whereby they could be made to indicate if the scales were changed from the original seal to weigh incorrectly by the changing of the leverage by anyone who might be so inclined is beyond my understanding.

In the State service in Minnesota we were forced to find some means to assure us that the scale leverage of the scales in the State department was not or could not be changed without detection by other than the regular bonded department experts, and this necessary action on our part resulted in the adoption of the simple yet effective device which I am given the privilege to exhibit here.

It might be worth stating that the only opposition we have met at any time in the matter of applying this sealing device to scales has invariably come from those sources most needing surveillance.

No man who has to do with scales and weighing can deny the urgent need of having the most vital part of a scale, that part which determines the leverage or weighing results, guarded by some means so that when the scale is left correct there will be assurance that it will not be manipulated in the interests of anyone without detection.

The device used by the State of Minnesota is a shield made to fit closely over the set screws or nutted bolts, as the case may be, by means of which the so-called " nose irons " are held in proper position.

It must be plain to all that if the set-screws can not be loosened, so that the leverage can be changed, without breaking the sealing wire that holds the shield over the vital holding set-screws, evidence is at once given that such manipulation had been done, and of course the responsibility would then be placed on the owner or operator of the scale.

The pamphlet, which I will take the liberty to hand you, regarding this particular sealing device, shows in a measure what has been accomplished, and that is only a beginning; for, as closer results in weighing are demanded from day to day, so will the requirements that relate to the maintaining of accurate weighing equipment become greater, and I predict that the time is very near at hand when we will all regard it as ridiculous to have left this one door open to fraud, so easily brought about by any one, without fear of consequences, where a scale is called " sealed " and in reality is not sealed at all.

(Mr. Neale here exhibited samples of two types of the device referred to, and also a portable indicator for use in testing scales.)

The CHAIRMAN. Mr. E. O. Sather, city sealer of Minneapolis, is the next to speak.

Mr. SATHER. Mr. Chairman and gentlemen, I presume, with the exception of Mr. Kjellander, I am the only city sealer present. I did not prepare any specific paper for this occasion, as I was not sure that I would be permitted to take an active part in the conference, but I am very glad to be here, for it is something that I have been looking forward to ever since I became connected with the office of sealer of weights and measures.

Notwithstanding that our office has been in existence in Minneapolis since 1879, I am sorry to say it is yet in its infancy. We have just begun to perform work that is showing a little effect. Having a city of 300,000 or more people and only one man to perform all the duties involved in that office, anyone who is acquainted with the work can readily see that in covering such a large territory and with the different departments, it is a hard matter to do justice to any one particular department.

Great stress has been laid in Minneapolis upon the fact that the scales should be taken care of, which on my first inspection last year I found was very necessary. I am sorry to say that a large percentage of those scales were in bad condition. We have in Minneapolis quite a number of even-balance scales, and I found to my astonishment that the weights of those even-balance scales had never been tested; at any rate there was no record in the office to show that they had been. Mr. Kjellander said that after the abolishment of short weights the scales would eventually take care of themselves. That may be, but I am a little inclined to take issue with Mr. Kjellander where the inspection is just beginning. I believe that the scales must be adjusted first, and as nearly correct as possible, and that the people operating those scales must be given to understand that they must use them correctly. Then, after the scales have been corrected and put in order, and when prosecutions begin to follow, they will realize that the city sealer means business. If you do not get the scales correct in the first place, it is an impossibility to get convictions for short weight, for they will contend that the scales have not been sealed, that they have not been put in perfect order, and consequently that they did not know they were giving short weight.

As I say, I have had a very limited time to perfect the scales of Minneapolis, and I am sorry to say that they are not perfect. It requires considerable time to keep watch of the scales, and I believe that every sealer who has had anything to do with apparatus will realize this and how easily they are manipulated. I have had cases of conviction where the first excuse was that the scale had not been tested, but when the party was asked the question whether it had been tested or not, he did not want to answer, for the reason that he knew he would incriminate himself, because he had never called for an inspection. This particular case was that of a party selling butter, having his establishment in his private house. As the law reads, I have no jurisdiction over a private scale; it must be a commercial scale. But at the same time, even though it was a private scale, he was using it for commercial purposes, and it was his duty to bring the scale to me and have it tested. Consequently, when the city attorney asked him if the scale had been tested, the defendant's attorney was

quick to object to that question, for he did not want his client to incriminate himself, and the question went over. He paid a large fine for selling short-weight butter and also lost his scale, as it was taken away from him when he brought it to my office the next day. So this shows that it is necessary to test the scales.

I have mentioned that we had a considerable number of even-balance scales. We have also quite a number of computing scales of different makes. Computing scales, as you know, are set on a frame and are put in balance with an adjusting screw. Now, it is an easy matter for any merchant to manipulate that screw and throw the scale off half an ounce or an ounce, and there is no way that we can possibly stop the manipulating of such scales unless such a device as that indicated by Mr. Neale can be adopted. When I first started to test scales I was asked this question more than once: "When you have sealed a scale and put a tag on it, what have you done to it to prevent people from tampering with it?" And I would have to answer, "I have done absolutely nothing to prevent them from altering the apparatus. I was simply checking them up, and that was all. This did not protect the consumer to the fullest extent. On the other hand, if such a device as this which I have spoken of can be applied to any scale so that the scale can not be tampered with, the scale is protected, and the consumer is protected. I have at the present time an ordinance before the city council of Minneapolis asking for such a sealing device; but it will have to be such a device as the city council will approve before the sealer can use it.

Mr. Goodwin. Let me ask a question. Do you have any law regarding tampering with a scale after the sealer leaves it?

Mr. Sather. We have to this extent: That if we can prove that a man has willfully tampered with the scale he can be prosecuted.

Mr. Goodwin. Do you have a penalty?

Mr. Sather. We have a penalty for that. But if I go into a store and find a scale out of balance, the merchant may say, "Well, the scale is just as you left it when you were here; I never touched it." What proof have I, under the present conditions, that he did tamper with it? That is one reason why it is necessary to have some device to prevent the owner from manipulating his scale. This proposed ordinance carries with it a penalty and makes it a misdemeanor for anyone to remove the sealing device of the cap, and it throws the responsibility of removing it upon the owner of the scale. The owner may not know anything about the scale having been tampered with, but at the same time he is responsible for it.

Mr. Kemmerer. Suppose this device is attached to the different types of scales, for instance, a computing scale, what is to hinder any merchant from giving 15 ounces to the pound, whether that cap is

put on the scale or not? Does it make him any more honest? The customer can not see what the scale registers unless he goes behind the counter.

Mr. SATHER. That is true; there is nothing to hinder him from giving short weight, but at the same time there is a check on him so that he can not tamper with the scale. Any man can give all the way from one to several ounces short weight if he wants to; we can not stop him unless we catch him at it.

Mr. KEMMERER. I do not believe that there is one out of a dozen times that a customer is defrauded, where it is done by tampering with the scale. I believe, as Mr. Kjellander said just now, that very much more of that is done by short weight than by tampering with the scale.

Mr. PALMER. He could move this computing scale to another position on the counter and accomplish the same results, could he not?

Mr. SATHER. All computing scales have to be leveled before being operated, and the owner would not be allowed to move the scale from one counter to another without the permission of the sealer, because by moving the scale it would be thrown out of balance.

Mr. PALMER. That is the point exactly; he would intentionally throw it out of balance. What would you do in that case?

Mr. SATHER. If we had moved the scale without the sealer's knowledge and consent, he would be prosecuted.

Mr. PALMER. Would it not be a hardship to say that he must use his scale on a certain place on the counter, and not move it to any other part?

Mr. SATHER. I do not think that would be a hardship. I do not know that I have found a single scale that has been moved, except during repairs or for similar cause.

The SECRETARY. May I interrupt a moment? Mr. Kjellander's attitude has been mentioned once or twice, and it seems to me it is a little misunderstood. I thoroughly agree with Mr. Kjellander. I do not think he means for a moment that the scales should not be tested, but the point he makes is that even if they are tested, you are not sure of getting honest weight, and consequently the thing to look out for is to see whether the purchaser is getting what he pays for. If you do that the other will take care of itself under proper laws. It seems to me a law might be framed so that the sealer would not need to examine anything; it would be up to the merchant. Of course I do not say that such a law would be advisable. But the main thing to do is to examine purchases and see that they are what they are represented to be.

Mr. KJELLANDER. I do not wish to be understood as saying that scales should not be sealed. Of course scales must be tested and sealed. The reason for testing a scale is to see whether it is correct

throughout. For instance, we find that spring scale may be correct up to 1 pound, or up to 2 pounds, but after it has gone as far as 1 or 2 pounds the scale may then begin to be incorrect. That is the purpose, as far as I understand it, of testing scales. It is a protection to the owner and to the public alike.

Now, as to the possibility of keeping grocery scales in order, I will say that it is impossible, especially in the city of Chicago or any large city, to see that scales remain correct after they have been tested. No human being can do it; it is impossible. But you should have an ordinance to the effect that if the scale is not correct either the owner should be warned that his scale is out of balance, or you should prosecute him for not keeping his scale in balance. We have in the city of Chicago an ordinance to this effect, which remedies all those things:

If any person shall use, maintain, or operate in the city any weight, measure, or scale, etc., which shall be out of order or incorrect, or which shall not balance, he shall be fined for every such offense not less than $25 and not more than $100.

It is the sealer's duty to see that those men are warned that their scales must be kept in balance. I have given this advice to all the grocerymen when they have come to see me: "Our testing does not mean anything except that the scale was correct at the moment when we tested it, and if your scale gets out of balance you are liable. It does not make any difference, if a screw gets loose, whether you unscrewed it yourself, or whether some one else did; you are liable yourself." It may seem unjust, but that is the only way you can do business. The grocerymen can put a scale in balance at any time. If a screw gets loose they can tighten it without trouble, and the advice I have given them is, "Every morning when you go into your store, go around and look at your scales and see whether they are in balance, or give your clerks instructions to do so, because if you do not do this you are running a big risk of being prosecuted and fined."

The device that has been spoken of here may be all right. I have not studied it; I do not know anything about it. Probably it would be a good thing. But anyway, if you do not have such a device, of course you have to do the other thing. We have to say to the merchants, "It is up to you to keep your scale in balance. If you do not, you are responsible and that is all there is to it."

Mr. REICHMANN. Mr. Chairman, I think Mr. Neale is misunderstood. His device is a very good one, but I think he tries to carry it too far. It is all right as a device to protect the adjustment of a nose iron on a large scale. Now, Mr. Neale is a State employee, and in his inspection of railway track scales, it is very necessary and desirable that he put a seal on scales that can be broken only by him officially, he being a bonded officer under the State; but when you

carry that too far, and apply it to every little adjustment and every little screw on every grocery scale, that is a different proposition. In other words, the easiest way for him to adjust the leverage on large scales is to adjust the nose iron. If the nose iron is exposed so that it could be easily done, there is that temptation, and his device simply removes that temptation. Of course that does not mean that a man can not weight incorrectly on the scale; it simply removes the temptation to use his scale when out of balance. I think you are trying to carry the matter too far by considering the device applicable to all scales.

Mr. SATHER. That may be so, but I do not see it that way. I have had considerable trouble with keeping scales in balance. As Mr. Kjellander said, you have to look after the scales and see that the merchants keep them in order; but at the same time, when you drive up and the merchant sees you get out of your buggy and come into the store, he gets busy at that moment to adjust his scale to balance, if it is out of balance. It is evident that something should be put on the scale to stop him from doing that, and to stop the possibility of his tampering with his scale. There is one store in Minneapolis that I have visited about once a month (I would visit it oftener if I had time), and I have never gone into that store without finding every one of those computing scales out of balance. Every time I have been there they have been out of balance all the way from one-half to one ounce.

Mr. YODER. Are they all the same type of scale?

Mr. SATHER. Yes.

Mr. KJELLANDER. I would say to them, "You can not use that scale; get a scale that is right."

Mr. SATHER. The scale is perfect, if they would only leave it alone. I asked the city attorney if I could prosecute them for it, and he told me no.

Mr. REICHMANN. You had better elect a new city attorney.

Mr. HASKELL. Mr. Chairman, the man who owns the scale or is using it, whether it be a balance or computing scale, can see as well as the inspector whether it is an ounce or two incorrect. If it is incorrect by an ounce or two, it is evident that the man purposes to defraud the public. That is the way we look upon it, and we immediately take him to the police court. If it is caused by carelessness, and he is prosecuted and pays $25 or $50, he is very much more apt to look his scales over and see that they are all tight. He can see when he looks at the dial whether it is just at zero or not. Two or three prosecutions of that kind spread over the town pretty rapidly. If on our first visit to a store we have any reason to think that the man is not strictly honest, we call at his place two or three days

afterwards, and if we then find his scale out of order, it is evidence enough to us that his intention is to defraud.

Mr. KJELLANDER. I want to say that I have prosecuted between 75 and 100 merchants in the city of Chicago because their scales were 1 or 2 ounces out of the way. In one instance a scale was incorrect by 4 ounces; and the man was fined by a jury $100 and costs.

Mr. HASKELL. In regard to the device spoken of, I do not understand that this convention is to take any action on this device, but that it is merely for the purpose of educating us into different ideas, in which we are all willing and anxious to improve ourselves. The device may be a good thing; no doubt it would be on computing scales, and also on certain other kinds of scales that can be manipulated with a thumbscrew. If it were covered up and so fastened that it could not be removed except by the sealer, it would undoubtedly be of some benefit. But when a scale is found 2 ounces fast or thereabouts, it is evidence to us that the man's intention is to defraud, and we have acted on that; because he can tell whether the arrow is pointing at zero or whether it is 2 ounces fast.

Mr. RICE. Mr. Chairman, I would like to ask the gentleman one question. Suppose he inspects a computing scale and seals it as correct, and the next week finds it incorrect—short—and again adjusts and seals it. He repeats the operation a week later, and so on. How many times will he have to find that scale weighing short, and adjust it, before he can refuse to seal it and put his "condemning" tag on it, and thereby throw the scale out of use and make it valueless, instead of resorting to prosecution?

Mr. SATHER. I have no law, either directly or indirectly, so far as I know, whereby I can prosecute a man who is using a faulty weighing machine. As I say, even though this law has been in effect since 1879, we are yet in our infancy, and we want to learn all we can along these lines.

The CHAIRMAN. Gentlemen, I think it would be entirely in order for you to pass resolutions regarding any particular type or design if in you experience you find that a particular make of scale has some defect, and in that way give the dealer a warning. If you say, "We do not approve of this type," I do not believe a single dealer in scales can afford to neglect that warning, especially when you get well organized.

Mr. REICHMANN. How is the dealer going to know that we have adopted such a resolution?

The CHAIRMAN. Through the sealers.

Mr. KJELLANDER. That part is all right if the bureau takes hold of it and says, "You can use only certain kinds of devices;" but it would be dangerous for the sealers to say, "Do not use that scale,

because I do not think that is a popular scale." That would be immediately showing partiality, and we have to be very careful about such matters, at least in Chicago. There is a fight, for instance, now between two large scale makers in this country, and they have been trying to drag me into it. A salesman for one of the concerns came to my office and told me that a certain scale was wrong, and that it was always wrong. I said, "How do you know?" He said, "Because I know." I said, "That does not prove anything to me. Now, let me tell you, sir, I am not like the colored gentleman in Omaha, and you have to show me before I start anything." So he went out very much offended. He got so much offended that he got insulted. I told him, "There is the door; get out of here."

But at the same time, as I said, for us to say that a certain scale is not the kind of scale to use, even though it should not be at all times absolutely correct, is, in my opinion, a dangerous thing to do. If our Government has the power, or could assume the power to prescribe the kinds of devices which may be used, as the English Government does, it would be a very excellent thing to exercise that power. In England, as I learned from Mr. McMahon, deputy warden of the standards of England, a scale is tested by putting weights on it up to its full capacity and letting them remain there, I believe he said, 24 hours, and if the scale does not weigh correctly after that, pound for pound, ounce for ounce, its use is not permitted. But for me to go ahead in the city of Chicago and say, "Here, you can not use this kind of scale," I am not going to do it.

The CHAIRMAN. I think you misunderstood me. I certainly did not mean to propose anything of that kind; but if you should say that this association of sealers had disapproved of that form that would be very strong backing, and if this association will submit a matter of that kind to the bureau I have an idea that the bureau will pass on it. There is a great difference between your going to those people as an individual and your representing to those people the action of this body as a whole. In fact, I would like to see this body take action in regard to some of these things that ought to be abandoned.

Mr. REICHMANN. Following your suggestion, Mr. Chairman, I give notice that I will introduce a resolution to-morrow, if you will entertain it, condemning certain types of scales, and calling upon the Bureau of Standards to furnish every sealer and every manufacturer of scales, weights, and measures in the United States with a copy of that resolution.

The CHAIRMAN. I should have to know just what the case is.

Mr. HASKELL. Mr. Chairman, I think such a resolution would have to be pretty carefully looked into.

The CHAIRMAN. I can assure you that it would be carefully looked into.

Mr. REICHMANN. Of course, any sealer has a right to submit to this bureau any type of balance and ask for an opinion, for his own information; but the suggestion I made was that this conference might take action in regard to certain points that were undesirable in regard to scales, and that those points might be made public without injury to a single member of the conference.

Mr. HASKELL. I think some such resolution will come up before we adjourn. Suppose a sealer should assume the responsibility of saying to an individual that he shall not use a certain type of scale. He would immediately be taken into court and sued for damages. He would not be able to attend to anything else except to protect himself against suits for damages.

Mr. PALMER. Mr. Chairman, do I understand that the bureau is in a position now to officially pass upon any type of scale, or measuring device, which is submitted to it by a State officer?

The CHAIRMAN. We are doing it every day.

Mr. PALMER. That is news to me. I am very glad to hear it. I want to submit some things to the bureau.

The SECRETARY. We are, however, without authority at the present time to enforce any conclusion we may come to.

Mr. REICHMANN. But your report can be made public, can it not?

The SECRETARY. I do not think we would give it to you for that purpose.

Mr. REICHMANN. But that is what we want it for.

The SECRETARY. What we are doing every day is examining types of machines submitted to us by manufacturers who desire our opinion on them.

Mr. REICHMANN. On the principle involved in the scale?

The SECRETARY. Yes; but this opinion is confidential and not intended for publication. If we find that the scale is defective in design we report it to the manufacturer, but we have no authority to prohibit its use.

Mr. THOMAS. This is the first opportunity we have had to hear from Minnesota. I would like to hear the rest that is to be said by Mr. Sather.

Mr. SATHER. Mr. Chairman, it seems that by introducing the sealing device I stirred up a hornet's nest; but that is all right. We are here to learn all we can. However, I shall not say any more about scales at the present time. It may come up a little later.

I will say that I am in the same position with the rest of you here. I am satisfied in one way—that is, that the rest of you are in the same trouble that I am. I am not at all content, but I find that we all have the same difficulty in remedying matters; for instance, short weight. Now, we have no direct laws governing short weight. We have not even a direct State law that I can fall back upon. Of

course, the State has adopted the bushel measure, but that is about all it has done. Dealers can come into Minneapolis and sell potatoes by the bushel or bushel basket. They call a basket a bushel. Dealers use different-sized bags for measuring a peck. Butter, for instance, is sold by "jars" and "prints." They got around the law by claiming they were not selling by the pound, but by the jar or print. I have had three convictions on short-weight butter. The first one was in Minneapolis, and it has had its good effect. And since I have not had any straight or direct law to work by, I have been working in with the grocerymen. In making my rounds last fall I called on a great many grocerymen and told them, in regard to short-weight butter, that if they did not help me to force the packer to give full weight, I would have to get after them. I told them that I did not feel that I was justified in prosecuting the grocerymen, for I considered that they received the butter from the packer with one hand and handed it out to the customer with the other, and that they had nothing to do with the short weight; but that if they would not assist me in getting after the packer, I would have to get after the individual seller. By this method I was finally able to get before the short-weight committee of the Retail Grocers' Association, an organization of 300 members, and while at the conference I introduced a card which Mr. Fischer now has.

By request the secretary read the card referred to, which is as follows:

The standing committee on "short weights and measures" of the Minneapolis Retail Grocers' Association for the year 1910 respectfully solicit the aid and cooperation of all grocers and butter dealers in the city to help weed out the short weights on brick, print, and jar butter, or anything that shows intent to defraud or deceive the consumer. Please report any irregularity or unlawful weight or measure to any of the undersigned committee. City Sealer of Weights and Measures E. O. Sather is with us and will take up any such complaint and prosecute the same to the full extent of the law.

JANUARY 20, 1910.

The SECRETARY. I also have a resolution that Mr. Sather handed me, which I will read:

Resolutions adopted at the meeting of the Minneapolis Retail Grocers' Association held on the 14th of February, 1910.

Whereas the practice of selling butter and other table commodities all short weight has been openly practiced by dealers and that the retail grocer, in nearly all cases, has to bear the blame for the packer's and middle man's fraud.

Therefore, be it resolved by the Minneapolis Retail Grocers' Association at its regular meeting, which was held February 14, 1910, That it be the prayer of this association that the National Conference on Weights and Measures be urged to use its best influence in securing such national and State laws that will bring about that all table commodities (such as apples, potatoes, onions, turnips, parsnips, spinach, cranberries, butter, etc.), be bought and sold exclusively by

weight instead of by measure; also that all commodities sold in packages have printed on the wrapper thereof, in plain letters, the net weight of same, and

Be it further resolved, That Mr. E. O. Sather, city sealer of Minneapolis, be, and is hereby, chosen to represent this organization in Washington, which said organization will indorse any action taken by Mr. Sather in connection with any work relative to said measure.

Mr. SATHER. That speaks for itself, namely, that the Grocers' Association is willing to cooperate with the sealer of weights and measures in stamping out the short-weight butter and other commodities that appear on the market.

It may seem strange that when the sealer is after these people for short weight, he should have to solicit their aid in carrying it out; but we do not have adequate laws, and I may say that our present council is in such shape that it is a hard matter to get anything before them at the present time. They have had a gas proposition before them which has occupied most of their time. That is one reason why there have not been any special laws adopted. But I believe that by getting the grocerymen to understand that prosecutions will follow if they do not get in line, it will have a good moral effect. The card the Retail Grocers' Association had printed was published in the city papers of Minneapolis, and a very good editorial went with it, so that it has had its effect.

When I took office a year ago butter was frequently found as low as 14½ ounces in a print; and now it seldom runs below three-eighths of an ounce short. Occasionally one runs half an ounce short. I went after them, wrote letters with threats, and even to people who were shipping butter in from outside points, and they have promised to do better, and have done so. If such education as we get here could be brought home, and the aldermen in the cities begin to realize what is being done along these lines, I am satisfied that Minnesota will have just as good laws as any other State in the Union, for I believe that Minnesota is just as progressive and aggressive as any other State.

Gentlemen, there is one other matter I wish to touch upon, and that is regarding the flour question. It is my duty as sealer to test the scales at the flour mills. Last summer I tested 340-odd scales in those mills. Of course all these scales were not used for weighing flour; some of them were small combination and platform scales. Every scale used by the milling companies to weigh flour is inspected by their own scale men every day. Every milling company has a scale expert who does nothing else but test scales. I had a set of sealed weights with me when I did the testing there, and I did not find a single bad scale in those mills. They tested up splendidly, and I was rendered assistance that is rarely given when a sealer tests scales; at any rate, I did not find it in any other place. The scale

expert was with me, and when I came to test the scales every platform was taken out and the scale was cleaned thoroughly before I put my weights on it, and they were willing to do it, and assisted me in every way, so that the scales could be given a good fair test.

Now, in regard to Mr. Haskell's question as to flour sacks, I am not able to answer because I have not looked into the size of flour sacks because there has never been any complaint made on any flour weights at Minneapolis. And I want to say this, that there are sizes of flour sacks shipped East that are never used in Minneapolis. There are very few sacks of flour sold in Minneapolis that weigh less than 12¼ pounds. I understand that sacks are being put up for shipment that are very small. I will explain to you how they put up these small sacks. A platform is set on one of these small combination scales, or, in fact, there is a rod that comes up with a small platform on which the sacks are set. With these small sacks there is always a tendency for the flour to sift down over the top of the sack and lodge on the platform. To obviate this a sheet-iron cover sets over the scale and is slanted up underneath the platform, so that all the flour falling over the sack goes right down onto the floor, and not a speck of it gets onto the scale. That is done so that they can weigh those small packages accurately, and a very high-grade scale is used for that purpose. Of course, even though they may be the very best scales, there may be a discrepancy in the weight of the filled sacks.

Mr. HASKELL. That has been my understanding, that the milling companies were very careful of the character of scale used, and from what you say there is no valid reason or excuse why their sacks of flour should not hold out well. We had a case of short weight not long ago. I will not mention any names, but it was one of your prominent Minneapolis concerns. The concern was prosecuted, and the maximum fine was imposed, which was $100. We have now in our office a number of cases that we are about to take up. That is the reason why I asked about those sacks. It is a common occurrence for us to find here that sacks of flour that should hold 6⅛ pounds actually hold 5 pounds 10 ounces, 5 pounds 11 ounces, or 5 pounds 12 ounces. We have figured out the shortage, and I made a statement in my annual report, which the press took up, that the loss to the city of Washington from this cause amounted to over $40,000 a year. I have made a statement that the shortage of flour put up in sacks was enough to pay the running expenses of the mill manufacturing it. If that is a fact, we can not prosecute too often, because there is no reason why the consumer should pay to any flour concern, in short weight, the expense of running the mill.

The CHAIRMAN. It is another illustration of the point that I mentioned a while ago, that through these meetings we may reach

manufacturers more quickly than we otherwise could. I think it is a very important function, and one that I had not thought of before. There is no reason in the world why you should not find out at this meeting where the short weight comes from in your city.

There is one question I wish to ask you. What is being done in the other cities in Minnesota? Is there anything at all in the way of a State organization?

Mr. SATHER. St. Paul and Duluth both have sealers. Duluth has had sealers for a number of years. St. Paul had a system years ago and dropped it, but took it up again a year ago last January. There is no State organization.

The CHAIRMAN. The next State is Montana, represented by Mr. A. N. Yoder, secretary of state.

Mr. YODER. Mr. Chairman and gentlemen, I will use only a few moments of your time. I have no report. I will tell you a few things, perhaps, that we do, and a great many more that we do not do. Montana, you know, is comparatively a new State, and that accounts for a great deal of what I may say. At the present time we have perhaps not over 500,000 people in the State, scattered over a vast territory, and it costs a great deal for a sealer to look after the interests of the people. Whenever there is a new office created, it is put under one of the State officers without extra compensation, for the reason that we are always short of money. That is the reason why the secretary of state at the present time is also the sealer of weights and measures. You all know, who know anything about the work, that it takes all the time of one person to look after the sealers if he wants to do it right; and that he has no time to attend to other State duties.

I came here three years ago, and I will say that I learned a whole lot. I went home and made a report to the governor, and we agreed that we would not ask for very much. But I want to tell you this first, that the State of Montana does not own a set of standards. I could not test a scale if I wanted to, and I did want to, and could not, because I have nothing with which to do it. I asked the legislature to appropriate enough money to buy the paraphernalia; but the reply was that the money had run short, and I would have to wait a little longer.

A few of the cities and communities have sealers, but they do very little work. It is mostly a position that some disgruntled politician happens to get by appointment of the mayor. At the present time the county clerks are sealers. As a rule they change office every two years. Before they learn their duties they are succeeded by new men, who have to go over the same ground. Just as long as it is that way we can not expect much benefit.

Last year after the legislature refused to get the standards, the governor wanted me to attend the conference, but I told him it was of no use to come and listen, if the people were not ready to take the advice of the States that had had experience. In addition the legislature met just at the time of the conference, and you know that the secretary of state has plenty of troubles when the legislature is in session, without hunting more at Washington, so I did not attend the conference. The governor, however, has promised that he will take the matter up and help all that he possibly can to bring about uniform laws and make the work effectual. I am perfectly willing to hand the duties over to some other person who has time to look after it, if the legislature is willing to appropriate the money so that he can be paid.

Now, as far as measures go, there is very little measuring done in our State. Everything is sold by the pound, except berries; and I suppose that is true of all the Western States. Berries are sold by the box, and not as quarts or pints. The boxes are always short of standard measure. I believe the only exception to the custom of selling by weight is in the case of cranberries. They are always sold by the quart.

Mr. REICHMANN. Dry?

Mr. YODER. Liquid; we have the liquid measure. Apples are sold by the box, without any standard as to how large that box shall be. There are so many tiers of apples, they tell you, in the box, depending upon the size. They are not sold as so many pounds or bushels. The only case where they are sold by the pound is when you buy about two apples for a quarter, or something of that kind. This, however, is not true of coal. A year ago the legislature passed a bill making the coal-mine inspector also the sealer of the scales at the mines, by which the miners are paid, and by which the coal is sold to the wholesaler. He was furnished with a set of standards to test the scales under him and I believe that he does good work. But when it comes to the retailer, there the coal-mine inspector's authority ceases, and it is then supposed to come over to the rest of us. And I suppose it is in most other States as it is in Montana, that every man buying coal imagines that he does not get 2,000 pounds for a ton; and very often we are asked to go and test the scales. I have been asked several times since I have been in office, and I have nothing with which to do it, and I just have to let it go. I thought it was of no use to go around hunting trouble unless the State furnished the paraphernalia with which to make the trouble.

We appreciate the work the bureau is doing, and you can depend upon the Representatives in Congress from Montana to do all they possible can for a bill—I will not say this bill, but a bill which they believe is right. Senator Carter wrote to me a year ago to send him

all the information I had gathered, and I did. I also referred him to the secretary of our conference for additional information, and I know that when this bill goes before Congress, if it is in such or can be put in such shape that it will appeal to them as being beneficial, they will work for it very heartily. I hope that we can get some such bill passed in this session of Congress, for it will help us a great deal next winter in trying to get other laws, in accordance with this law, passed by our Montana Legislature.

I think that is about all I can tell you. That is all we are doing, and that means we are simply doing nothing.

The CHAIRMAN. I think we will have to see, somehow or other, that the State of Montana is provided with standards. If we can not do it in one way, we must try to do it in another.

Mr. YODER. When I asked the legislature to appropriate money for that purpose they said that most of the States were provided with standards, and that I should try to get them that way. I wrote, I think, to the Department of Commerce and Labor in regard to it, but was informed they could not be furnished, and so I dropped the matter.

The CHAIRMAN. That was probably for the reason that we had not at that time either the time or the means to make any new sets; but there are some remnants of the old sets left, and I think we can find a way to buy the remainder, so that perhaps we can fit you out before very long. We will fit you out with standards if you will agree to use them.

Mr. YODER. I will agree that we will use them.

The CHAIRMAN. I think the bureau is without doubt authorized to furnish these; do you not think so, Mr. Fischer?

The SECRETARY. Oh, yes; there is no doubt about that. The model law which we adopted in the 1907 conference gives our attitude in the matter. In that proposed law it was provided that the Bureau of Standards should supply to any State or Territory or the District of Columbia a set of weights and measures, under certain conditions, but it would be a waste of good apparatus to furnish any State with standards until those conditions had been complied with.

The CHAIRMAN. Mr. Yoder has agreed to comply with those conditions.

Mr. YODER. I was interested in what was said about the milk bottles. I do not believe there is a milk bottle in the State of Montana that holds a quart or pint. But when that question is raised the milk dealers say, "How do you know that your quart measure is correct?"

The CHAIRMAN. We will agree to send you a quart measure next week.

The SECRETARY. There is no trouble about the standards. We could supply those immediately, so far as that is concerned.

Mr. YODER. If I could get part of that paraphernalia perhaps next winter the legislature would pay for the rest.

The CHAIRMAN. I think you will need the money for the secondary standards for your city officials.

Mr. YODER. Yes. A few of the counties have very fine sets, but they do not use them; and the department has no means of making them comply with the law.

The CHAIRMAN. That is just the trouble with some of the States that have standards. It ought to be a condition that they use these standards.

The next State is New York. We will now hear from Dr. F. Reichmann, superintendent of weights and measures.

Mr. REICHMANN. The Legislature of the State of New York is exceedingly conservative, and it does not enact legislation until it finds necessity therefor. Weights and measures, although the fundamental basis of all trade, have not received proper or adequate attention at the hands of the legislature, there having always been so many problems to consider that it has been left to the individual to protect himself in this matter. But it has come to the realization of the prominent people of the State that weights and measures legislation and the protection of the people in the quantity of the commodity they buy is now a crying need. Some of the greatest men in the Empire State—and this State has been second to none in the public-spirited men it has produced and has to-day—are interested in this subject. His excellency, Gov. Charles E. Hughes, being interested in efficiency and square dealing, necessarily is interested in protecting the mass of the people in the matter of weights and measures. The Hon. A. E. Merritt, the Hon. James W. Wadsworth, jr., the Hon. George H. Cobb, and many more I might mention, are in favor of efficient weights and measures legislation; and it is to these men and to those organizations and societies which have taken an active interest, not to mention some prominent dealers, such as the Hon. B. R. Lansing, of Rensselaer, and Mr. W. E. Woodbury, of Rochester, and many others, who have taken active interest, that whatever progress has been made in New York State, the credit is due.

I, as the head of the office of weights and measures, have made every effort to get an effective administration; and in spite of inefficient laws, the appeal to the people for a square deal has always met with a prompt response. I do not mean to say that it has been smooth sailing; far from it; the stretches of rocky roads have been numerous, the brambles and thorns on the sides of the rocky paths have been sharp and thick, but for all that there has never yet been an instance when it has been necessary to turn back. The department of weights and measures has tried and, I think, has succeeded in being as efficient as most of the departments of the State, and there is probably

no business concern in the country in which the individual departments are managed with as much impartiality and efficiency as the individual departments of the State of New York.

The details of some of the work that has been done since I last appeared at this convention would be lengthy, and as many of them are already a matter of public record in my last report to the governor, I submit the matter to you in that form. There has been a great deal of work done that is not shown in the report. A special report on the conditions of New York City is in preparation, and, although I had hoped to have it ready for this conference, yet there are so many details connected with investigating the entire weights and measures situation in this large city—that is, investigating all branches of trade where weights and measures enter—that the preparation of statistical data is long and tedious, especially when the conditions of New York City are probably worse and more inefficient than those of any other place in the world.

The CHAIRMAN. The next State is Ohio, represented by Prof. Thomas of the Ohio State University.

Mr. THOMAS. Mr. Chairman, it is a pleasure to me to report some moderate but substantial improvement in the weights-and-measures situation in Ohio since we last met. We move rather slowly out there, on large questions at any rate, and some of the people at least in the State are beginning to look upon the question of weights and measures as one of the large questions. Most of you know already that there is no power of inspection that amounts to anything in Ohio. The State officer has no power; the county auditors, who are ex officio county sealers, have no power; nobody has any power under State law. The powers that are active there are solely those which are given by city ordinance.

In the early days the State furnished each county with a set of standards, and the county auditor was made county sealer. A law was passed at a later date making these officers responsible for the care of the standards given them, and responsible for double the value of the standards in case of loss or damage, to their successors in office. I instituted a little inquiry along that line this last year and found that out of the 88 counties which were so furnished in the State 7 counties now report complete sets in good order; 18 counties report not a single piece on hand; 51 counties range from a single piece missing to a single piece on hand; and 12 counties did not report. This affords a clear indication of the ineffectual character of the law as regards the duties of county sealers of weights and measures.

A call was made for a meeting of city and county sealers last May, and we arranged with the auditor of the State for our meeting to be at a time when a considerable number of county auditors would be in the city. Considerable interest was manifested. We had the good

fortune to have Dr. Reichmann with us to help in the discussion, and we had a few very live city sealers there. Unfortunately we have lost the services of one of the best sealers in the State, Mr. Owen Kane, of Cleveland, who was sealer during the Johnson administration in that city. The administration having changed, Mr. Kane is no longer with us. I have not gotten in communication with his successor, but I have heard good reports of him, and am in hopes that the good work of Mr. Kane will be continued.

With regard to legislation our legislature is now in session, and a bill or bills will be introduced shortly relating to weights and measures. It seems to me, after a careful review of the situation and consultation with some of those who are most closely connected with this subject, that for Ohio, at least, the best thing to do is to provide some means, adequate and effective, for enforcing the laws which we now have on our statute books. They are not perfect; there are several things to be desired in them; but it seems best that we should go ahead and get the good which may be obtained, and it is considerable, through a proper enforcement of the laws now on our statute books; and for that reason the principal effort that will be made in attempting to secure legislation, will be to provide for the appointment of a State commissioner of weights and measures, and of a sufficient number of deputies or inspectors under him to go through the State very carefully and completely within the coming year, and to use the facts that will without doubt be divulged, as a reason for other legislation at the coming session.

We are in a measure fortunate in the legislative situation at the present time in Ohio. The people of Ohio, like the people of many other States, have been deeply concerned in the question of the high cost of food, and it has become a matter of such general public interest as to lead the legislature to appoint a joint committee of the two houses, which has gone by the newspaper name of the "High-price food probe committee." That committee has been holding sessions, and was soon led to see that the question of the cost of living was made up not only of the price charged for necessary commodities, but also of the quantity obtained by one who pays the price. In other words, that the question of weights and measures was intimately and necessarily associated with the question of the price of foodstuffs. So that committee has taken up the question, and has requested the privilege to be allowed to introduce a weights and measures bill or bills, and to push the same with all the influence of the committee; and that is to be done. At their request I appeared before the committee on Monday night last, and reported on a number of things, the information I had received here at these conferences being of great value in that hearing. They have requested me to come again, after returning from this conference, to give them the benefit of the

further light which I may obtain here; and I have found a number of things which will prove of great interest and value to them.

The reports of city sealers and my personal experience as a consumer, indicate that there are evils of the same sort existing in Ohio as in Massachusetts, Rhode Island, New York, and other States from which we have had definite reports.

One point is of interest, bearing upon the question that has been spoken of considerably here, namely, the weight of butter prints. The city sealer of Columbus has taken a very short cut to the solution of that problem, and it seems at present to have been effective. Many complaints of short weight in butter prints having reached him, he undertook to obtain information as to the facts by going about and weighing butter prints in large numbers. As a result he wrote to the creamery men who were supplying this butter, advising them of the facts which he had found, and requesting them to remedy the trouble. Some of them met him in a fair-minded way; others met him in a contrary spirit (something like the Chicago frame of mind, I should judge); but when a creamery man objected to making good the weights of his prints, the sealer sent him a very short letter, something like this: "The law requires 16 ounces in the pound of any commodity sold by the pound. We have been advised that your products do not conform to that law. Unless by ——— your products are found to conform to the law, your agents and dealers in your butter will be arrested and prosecuted." That brought a compliance with the law; and by way of comment on that, I think the position taken was exactly right, because these dealers have in their places of business scales which have been tested and certified as correct, and they have it in their power, when they receive shipments of such butter, to ascertain whether they are getting full weight or not, and they have no right to claim that the responsibility belongs to the manufacturer. They have the chance to find out whether the butter prints are full weight or not, before they sell them; and for that reason I think our sealer was right in the stand which he took.

To give an illustration, a certain creamery, after consulting him about the matter, modified its print-cutting machine until, after cutting as many strips as were necessary to get the machine adjusted, butter was being cut not only 16 ounces to the print, but 16 ounces and a quarter, for the reason that it was proposed to meet the objection of shrinkage from evaporation. Our sealer, after consultation, adopted the interpretation of the law that the buyer was entitled to receive 16 ounces of butter to the pound, not something which, butter and water combined, had weighed 16 ounces a week earlier. The difference between the weight of the prints as now made, and those previously furnished, amounts, as the records show, to the sum of $15,000 in one year, from one creamery. Our public is waking up

to the situation, and I think the prospects are quite favorable to a, perhaps not rapid, but a sure and substantial progress, which is the best kind of progress.

The retail grocers of the State have, first by cities and later in their State organization, discussed and finally adopted as desirable, the plan of selling dry commodities by weight only, thus abolishing measures, except possibly in the case of perishable fruits, such as strawberries, raspberries, etc., which would be damaged by handling. They have prepared a bill along this line, which, I am told, will be introduced by the legislative committee of which I spoke.

I was exceedingly interested in what Mr. Haskell had to say on the bread question. That is an open question in Columbus, and one which is being agitated. He spoke of the equivalent in money of the 2 ounces of short weight in the average loaf here in the city of Washington as a number of hundreds of dollars. For curiosity, I figured it out. It amounts to $1,375 a day. That is one fact which I am going to take back to Columbus, and I think there will be action on the bread question there before long.

The CHAIRMAN. I am sure we all miss the interesting talk of Capt. Pettis, deceased, who was with us at the last meeting and represented Rhode Island. We shall be interested to hear from his successor, Mr. W. F. Goodwin, State sealer of Rhode Island.

Mr. GOODWIN. Mr. Chairman, my first duty as the representative of Rhode Island is a sad one. I feel it a painful duty to report the death of Capt. George H. Pettis, who was for many years the sealer of the State of Rhode Island, and performed his duty in a true and faithful manner. Mr. Pettis was a man who was universally respected in Rhode Island; a man of sterling character, very democratic, and one who made friends wherever he went. I presume that some of the people here have met him on occasions of this character and can vouch for what I say. He passed away one year ago this month, and was honored in death by the State and city organizations and laid away in an honorable manner. I hope and trust that this organization will take some action in the way of passing a suitable resolution in order that we may have a record on the minutes relating to the death and the character of my worthy predecessor, Capt. Pettis.

Mr. THOMAS. Mr. Chairman, it was my intention to offer at a later time a motion to this effect, but as it has been alluded to at this time I beg to be allowed to offer a motion that a committee be appointed to draw up suitable resolutions expressive of our appreciation of the services of Mr. Pettis as a member of the association, of our sense of loss in his departure from us, and of sympathy with those intimately connected with him, and that the resolutions be spread upon

the minutes, a copy furnished to the press, and an engrossed copy to his next of kin.

The motion was seconded and unanimously carried.

Mr. Goodwin. After listening to the delegates from the different sections of the country I feel highly honored in being the delegate from Rhode Island. I believe Rhode Island comes the nearest to perfection, in regard to laws and methods of sealing, of any State in the Union. It is a well-known fact that we are a small concern in some ways. In some manufacturing industries we lead every other State in the Union. There is not a subject which has been mentioned here to-day, with the exception of the question of the sale of bread, that is not fully covered by our laws, and in such a way that it is possible to enforce them. Every law regarding sealing in the State of Rhode Island, and the penalties for violation thereof, can be enforced, and I believe it was through the wisdom of my worthy predecessor that this has been made possible. Although not a particularly aggressive man, he nevertheless, in a diplomatic way, and through his influence, brought about the passage of these laws and made it possible to execute them. This matter of the sale of bread is now before our legislature, and it is a very serious question. I have talked with several of the legislators in regard to the matter, and it is a subject on which I would like to be better informed. I would like to get the written opinions of some of these able gentlemen who have brought up the subject here to-day before I leave for home.

I have made a note of some things discussed here, and although I dislike to take the time, still I would like to express my views upon them; for instance, regarding the matter of tolerance. We have no tolerance in the State of Rhode Island. I have some of my reports here, including the sealing laws, which will probably give you a better idea than I can of what our law means. I believe that when a man violates a law there should be no way of escaping the penalty. If there is no tolerance, the law says in so many words what it means. If there is a tolerance, it gives a chance to drop down or go up. I have looked into the subject very carefully, and have sometimes thought it was wrong to have a tolerance; but after due reflection and consultation with more able men than myself I have come to the conclusion that tolerance in any form is all wrong.

We leave this subject entirely with the sealer. He is the man to judge what variation he will allow. Then when it is necessary to take a case into court, which, I am sorry to say, we have been obliged to do several times, there is no question as to the meaning of the law. If you have violated it, you are guilty, and that is all there is to it. There are no "ifs" or "ands."

Regarding the sale of berries, our law is a very short one. I will read it:

Chapter 172, General Statutes:

SECTION 8. Nuts and shell beans and all kinds of berries, *whenever sold by measure*, shall be sold by dry measure, and any person who shall sell any nuts or shell beans or any kind of berries by any measure other than dry measure shall be fined not more than $20, etc.

There are no berries sold by the quart, peck, or bushel in the State of Rhode Island. They are sold by the basket; not by measure. So that we have never tried to enforce any law regarding measures for sale of berries.

Mr. YODER. Do you think that selling by the basket protects the people?

Mr. GOODWIN. I do not think it does. Judging from my own experience, when a person buys berries he looks them over, and if a box attracts his attention, after being told the price per box, he will likely say, "How much does it hold?" The dealer will probably reply, "I do not know; I never measured it." Since I have been a sealer I have asked these apparently foolish questions.

Mr. YODER. Do you not, as a rule, hear people on the outside give the price as so much a quart?

Mr. GOODWIN. No; I never heard that question asked. I never heard this matter advocated in our State.

I will tell you how I feel about it. Berries are a luxury, not a necessity, and I do not believe that there should be any law to govern this matter. Berries shrink tremendously. Everybody knows that who has ever picked or raised them. I do not believe that any luxury should be regulated in that way unless the dealer claims to sell a definite quantity. Of course, if you buy a basket as containing a quart, and do not get a quart, the man is cheating you.

The question of the sale of bread came up while I was a member of the legislature, two years ago. There was a tremendous outcry among the bakers against the proposition of having any legislation regarding the methods of selling or weighing bread, and the sentiment was so strong against it that the subject was finally dropped. This year we have a bill in the legislature, and it is a question whether or not anything will be done. I want to get the personal views of these other gentlemen on the subject before I go back to Rhode Island, because I want to help along anything that protects the common people.

Mr. HASKELL. Will you please tell us what objection was made to that legislation?

Mr. GOODWIN. The principal objections were that it would bring a hardship on the bakers; that they could not conscientiously do what the bill called for; and that they would have to be dishonest in order

to comply with the law as framed. The bakers offered very logical reasons why they could not comply with a law such as was introduced in the assembly. Finally the bill was dropped, and it did not seem as if it would ever be taken up again. No bill was introduced last year, but this year a bill, which I think came through the agencies of other States—probably Massachusetts—was introduced, and it looks as if there was going to be something done about it.

Mr. HASKELL. I am much obliged to you, Mr. Goodwin.

Mr. GOODWIN. Mr. Chairman, I will now conclude my remarks, hoping that I will be able to get some data on this subject of the sale of bread to carry back to my State.

Mr. PALMER. Mr. Chairman, as we are going to see President Taft to-morrow noon, and there is a lot of interesting business to come before us, I move that the hour of the meeting to-morrow be 9 o'clock, and that all the members come here promply.

The motion was seconded, and after some discussion it was carried.

Mr. KJELLANDER. Mr. Chairman, I would like very much to hear the rest of the reports, especially that of Mr. Smith, who is from a neighboring State, and who, I understand, is pretty well posted on weights and measures. It is now late, and I think it would not be fair to the remaining gentlemen to give them only a few minutes time. I think we ought to leave the reports from Vermont and Wisconsin until to-morrow morning, and I therefore move that we now adjourn, and that these two reports go over until to-morrow morning.

The CHAIRMAN. The Chair would call attention to the fact that a couple of committees are to be appointed.

As the committee on resolutions in regard to the death of Capt. Pettis, the Chair will appoint Prof. Thomas, Mr. Haskell, and Mr. Goodwin.

The committee to prepare a constitution and by-laws will be Mr. Palmer, Mr. Kjellander, and Mr. Rice. If this committee will look up the previous action and make recommendations in regard to changes, etc., perhaps we can pass on them to-morrow.

Mr. REICHMANN. Mr. Chairman, can we not have an evening session to-night?

The CHAIRMAN. So far as we are concerned you can.

After some discussion, and the withdrawal by Mr. Kjellander of his motion, Mr. Reichmann put his suggestion in the form of a motion, which was seconded and carried.

A motion to adjourn was carried, and accordingly at 6 o'clock the conference took a recess until 8 o'clock p. m.

THIRD SESSION (EVENING OF FRIDAY, FEBRUARY 25, 1910).

The meeting was called to order at 8.30 p. m., by the chairman, in the office of the department of weights and measures of the District of Columbia.

The CHAIRMAN. Gentlemen, we have two of the States to hear from. I understand it is your pleasure to finish up here this evening. I am inclined to think that we ought to reserve our questions until the gentlemen finish speaking. We got started the other way this afternoon, and I regretted before we got through that I did not rule that the questions should come at the end. However, the meeting was entirely informal, and some questions were asked right at the point where they would do the most good. But as far as possible, please reserve the discussion until the end of the report.

The next State to be heard from is Vermont, represented by Mr. P. F. Hazen.

Mr. HAZEN. Mr. Chairman and gentlemen, as I said this afternoon, my report will be very brief. As I explained at the December, 1908, conference, the legislature of Vermont was then near the close of its session. It meets only once in two years, and as I was not present at the 1907 conference, and did not know until 1908 of the model law which was suggested at the 1907 conference, it was then too late to bring the matter before the legislature, notwithstanding that some missionary work had been done. I am very glad to say that Gov. Prouty is a great deal interested in this mater and plans to make recommendations in his retiring message. I have had considerable correspondence with him and it is now being arranged to hold in Vermont a conference of city sealers of weights and measures, at which will be present the governor, the State treasurer (who is custodian of weights and measures), and such business men as may be interested in this subject. It is expected that the meeting will be held before the October assembling of the legislature, and I feel very confident that a bill will be introduced at the next session of the legislature. Of course, as the gentleman from Chicago stated to-day, what a legislature may do is rather an unknown quantity, but at the same time it looks very encouraging, and I think something will be done.

A gentleman from a neighboring city, who saw my name in connection with these conferences, wrote me quite fully, and finally

came to St. Johnsbury, and I had a long session with him. He was a coal dealer. He said, "It is difficult to sell coal honestly and compete with dealers who use fraudulent means. One has either to meet them in those fraudulent means or go out of business" He was very emphatic with reference to this question, and when we hold that conference he plans to be present. So that while we have not accomplished anything since the last meeting other than missionary work, I am sure that something will be done soon.

So much for Vermont. Now, as to these conferences which have been held here. As you know, this is the fifth one, and I think that Dr. Stratton and his associates may well be congratulated upon what has been accomplished. The progress may seem slow to some, but I know that rumblings are being heard from far and near, rumblings of dissatisfaction with reference to false weights and measures, and more particularly with reference to the fraudulent use of weights and measures. The purchasing public is waking up to the fact that it does not know what it is buying; it does not know whether full value is being given. Especially in these times, when so much is being said about the high cost of living, people are going to look into this subject of weights and measures. To my mind it is one of the most important subjects that was ever brought before the country, with the possible exception of the pure food question, which was agitated a few years ago and which has made such substantial progress. As I say, I think Dr. Stratton and his associates can well be congratulated in having worked this matter out, and instituted these yearly conferences.

Of course, in each conference, a great deal of the ground is gone over which has been touched upon in previous years; but we must remember that probably 50 per cent of the delegates in each conference are here for the first time, and unless this ground is gone over they do not get the whole history of the case; they do not get as much out of it as they otherwise would. So that I think the conference has been very profitable, and it seems to me this is the best session, Mr. Chairman, that has ever been held.

Mr. REICHMANN. Mr. Chairman, I feel that Mr. Hazen has said very little as to the amount of work he has been doing in Vermont. The prominent coal dealer referred to by him is interested in the subject of weights and measures, and was in my office about a week ago and said that Mr. Hazen is rapidly becoming a father confessor of all the people who want to get just weights and just measures; and that if there is one man in the State of Vermont who can get that law through, that man is Mr. Hazen. He also said that Mr. Hazen favors such a law, and that there is no question in his mind but that there will be legislation passed there this fall.

The CHAIRMAN. I have noticed one thing in regard to this subject of weights and measures, that when you once plant the leaven in a State, it never ceases to grow. I do not know of a single case where a State or a city or other community has gone backward in weights and measures.

Mr. PENNELL. Mr. Chairman, I want to thank you and Mr. Fischer for sending Mr. Holbrook to the State of Maine. That sort of thing is what we need.

We have made a little progress. From my point of view, we have the best milk-bottle law that there is in the Nation. Our city, Portland, has not, however, done enough to assist the State law. Portland has recently passed an ordinance in regard to the sale of coke and charcoal in bags. I brought Mr. Holbrook a copy of the ordinance. The city passed another ordinance prohibiting junk dealers from buying or selling milk bottles in any way, shape, or manner. About a fortnight ago we gave the dealers 10 days' notice to dispose of what they had in their possession, and I think, with the help from this bureau, we may, at the next meeting of our legislature, be able to get a State sealer, which we certainly need. The State treasurer, according to our law, is custodian of weights and measures.

Mr. Holbrook visited Portland and made a little examination before he called on me as city sealer. Then I took him around to the lowest class of merchants that we have, and later to the middle class. He found a great many short-weight packages, and since he was there I have notified our Portland creamery, the largest concern that we have, that when I returned, if I found any more of their packages short weight, they must not blame me when the county attorney gave them a call.

I hope the Bureau of Standards will keep up its good work and help us along in the State of Maine.

The CHAIRMAN. I neglected to mention one object we had in securing an appropriation from Congress, and I am glad your remarks have suggested it to me. You would be surprised at the number of city and State officials, especially city officials, who do not know anything about the Bureau of Standards. They do not know where they can get weights and measures; they do not know what paraphernalia they need; and I can assure you that our inspectors are sent out with the object in view of assisting such officials, just as much as they are for the purpose of making inspections. When they go into a place, no matter how they make their inspections—they can make them without the knowledge of the city officials if necessary, and they usually do—they are instructed to meet the city officials before leaving, and to ascertain how the Bureau of Standards can be of help to them and to establish friendly relations. Because it is only in that way that the bureau can reach the people. The time

is coming when you are going to do the inspecting, and we want to establish friendly relations with you. We want the bureau to be known to city sealers as a place where they can write and find out where they can get what they ought to have. We want it to be a clearing house for sealers.

Mr. HAZEN. I may state also, directly in line with Dr. Stratton's remarks, that on one or two occasions I have been asked to make an informal address with reference to these conferences and the work of the Bureau of Standards. I found the people very much interested in this subject and in the information that I was able to give them as to what this bureau is and what it is doing.

Mr. PENNELL. One word, Mr. Chairman, and that is that I hope you will not stop with what you have done in our State, but that you will have a thorough investigation made before the meeting of our next legislature, so that a report may be presented to that body.

The CHAIRMAN. The next State is Wisconsin, represented by Prof. Leonard S. Smith, State sealer of weights and measures.

Mr. SMITH. Mr. Chairman, I can not help but wish that I were going to address this meeting on some other subject than weights and measures. From the standpoint of State pride, I wish I might tell you something about how the State board of control runs its eleemosynary institutions, or the way in which the State of Wisconsin has established a tax commission, or the way in which the physical values of our railroads have been fixed, or the rate commission, by means of which an able and fair-minded body of men stands between the corporations on one side, and the common people on the other, and are square to both. If I could discuss with you some of these questions, I think I could be justly proud of the able way in which the State has handled these important matters.

On the contrary, when I come to think of the situation that confronts me in Wisconsin regarding weights and measures, I am anything but proud. I am not sure but that Wisconsin is near the tail end. We certainly are a long way in that direction. For this reason I am not able to give you any illuminating address, or to furnish information of value.

In a few words, let me say that our conditions are very similar (although not so favorable) to those in Ohio, as described this afternoon. We have a very fine set of State standard apparatus which the Government furnished us about the time of the Civil War. This apparatus is carefully mounted in a special room in the engineering building of the university. We have a very elaborate system of laws, every link is correct, strong, and perfect, but a connecting link is lacking.

In brief, our law states that there shall be a State sealer who is the professor of engineering. The duties of this office have devolved

upon me for the past 10 years. They are not very heavy. The law also provides that the county treasurers shall be ex officio sealers of weights and measures. I should say that about a dozen counties in the State out of 60 have availed themselves of the law. The law is mandatory, but it has not been complied with. Out of 60 counties, about a dozen have secured standards which we have calibrated. There is a very strenuous penalty provided, which I would like to read later. I do not think any State in the Union has anything so severe. It leaves nothing to be desired as far as severity goes. But, unfortunately, there is no provision which compels the city or town or township authorities to enforce the law. It is recommended, and I think we would all be glad to have it carried out, but no machinery of the law is provided to bring it to pass; so that this whole elaborate system falls to the ground. Until less than a year ago, May 21, 1909, there were no penalties whatever provided for illegal weights and measures. This beautiful State apparatus, and the State sealer were ready to seal standards, but none were offered. What the law lacks in continuity it seems to make up in severity of penalties, as will be seen by the following quotation:

> Any produce merchant, warehouseman. miller or storage, forwarding or commission merchant, or any other person who shall wilfully use false weights or measures in the buying or selling of any commodity or thing and thereby shall cheat or defraud the seller or buyer of any such commodity or thing; or any person who shall sell or offer to sell or have in his possession for the purpose of selling, any device or machine to be used or calculated to falsify any weight or measure, or any person who, wilfully with intent to cheat or defraud the buyer or seller of electric current, gas * * * water or steam, etc.

It includes a long list, and I believe there is nothing left out. For a violation of any of these provisions the law provides that the offender "shall be punished by imprisonment in the county jail not more than one year or by fine not exceeding five hundred dollars." It is a pretty strong penalty, but fortunately for the tradesmen of our State there is no machinery to carry it out.

Now, largely through the interest which your inspector, Mr. Holbrook, aroused in our State, this matter has been brought to the attention of the public. My duties are quite away from this line of work, as you would naturally expect, and while I am filled with an honest desire to help the State of Wisconsin we need some one to call our attention abruptly to the need of reform. I want to say that the work of this bureau in calling attention to the condition of affairs that obtain in Wisconsin has been very helpful indeed. The attention of the governor has been directed to these matters, and I think he is much interested. The dairy and food commissioner has been correspondingly interested. I have no doubt that when I go back ways and means will be found to initiate a needed reform. I am very

optimistic as to what can be brought about in Wisconsin by intelligent effort. All we need is some one to take a personal interest in showing up what the conditions actually are and the proper remedies. Of course, something else has to be done besides pass laws; you have to follow it up with well-directed efforts, such as Dr. Reichmann has done in New York.

The problem in Wisconsin, I think, is a little more difficult in some respects from what it is in most of the other States. The character of the population, the density, the size of the cities, their distance apart, all vary as greatly in going from the Illinois line to the Lake Superior boundary as you would find in crossing the continent from Massachusetts west. In other words, a law which would fit southern Wisconsin would not fit northern Wisconsin any more than a law that would fit Massachusetts or densely populated New York would fit Nevada. I say the problem is very much complicated by the fact that the northern part of the State is very thinly populated and that by a population which, in wealth, education, and otherwise, is distinctly differentiated from that in the southern part of the State. This matter will have to be gone into with considerable care and a great deal of thought will have to be given to framing the law so as not to make it too drastic at first and make the people rebel. Favorable public sentiment is necessary before you can hope for the greatest success in carrying out a matter.

There are one or two things I want to speak of which will perhaps be helpful and suggestive. At Madison, where I live, the university runs a creamery on quite a large scale. The butter is sold to all the dealers of the city.

Mr. KJELLANDER. They give full weight, do they?

Mr. SMITH. That is the point I am coming to. Not only that, but apparently the influence of the university is felt much further than in its own sales. The other stores have to compete with the same conditions. I think I am violating no confidence if I read Mr. Holbrook's report on that matter. He weighed a great many packages of print butter, and (without giving the figures) will say they varied through comparatively small limits. There were 25 tests made on the university print butter, and out of these there were only three that were less than 16 ounces. Now, while the five or six other dairies in the city did not measure up quite to that limit, yet there was a very general agreement in the size of the packages and a substantial compliance with the law. If you buy a package of butter in Madison you get practically a pound of butter. In talking this matter over with the professor in charge of making this butter, and who is an experienced man, the question was asked whether he could control the size of the print within reasonable limits, and he was sure that he could. He thought it was a comparatively simple matter;

that if they wanted all the prints to be a little less than 16 ounces it would be as easy, but no easier, than it would be to have them a little more than 16 ounces to the print. Now, contrasting that with the conditions which Mr. Holbrook found in Milwaukee—I will not take your time to read that—there is a striking difference. There was almost an equal unanimity on the other side; that is, the prints were uniformly smaller than they should be. I speak of this as showing how a single center can influence by its example a large community, or a comparatively large community, and also as showing that it is well within the limits of human endeavor to control the size of the butter package.

Now, in regard to the claim that butter loses weight by evaporation, I discussed this matter with the dean of the College of Agriculture only a few days before coming here, and asked him if, in his opinion, there were large losses due to evaporation. He laughed at the idea. He said that of course there are losses, but that, in his opinion (and he is an experienced man, brought up on a farm, for that matter), they are vanishing quantities, too small to be worthy of serious consideration for any of the ordinary limits of time butter is apt to remain on the market. I would not say that in the course of a number of months or years they might not be significant; but, speaking practically, print butter does not stay on the shelves any considerable length of time.

The CHAIRMAN. Is it not usually wrapped in oiled paper, which also prevents evaporation?

Mr. REICHMANN. Yes; paraffin paper.

Mr. SMITH. Now, I do not like to sit down without expressing my gratitude again for the good that this visit has done me. I am sorry that I have not been able to come here before. I left duties that I would have been glad to attend to, and at this very time there is a civil engineers' meeting at Milwaukee that I would have liked very much to attend. But I felt that the State of Wisconsin had been misrepresented, or rather nonrepresented, long enough; and I am very glad indeed that I came here. I have received a great deal of help; probably no one here has received more help than I have, because I was in a condition to be filled up. I thank you very much.

Mr. NEALE. Mr. Chairman, for the information of Mr. Smith, if he wants to know where in his State there are four of the highest types of scale built, I will say that there are two at La Crosse and two at Osceola; and it might be interesting to him to know that Minnesota has charge and supervision of those scales.

Mr. SMITH. I am very glad to know that.

Mr. NEALE. They are large 100-ton scales. Minnesota, through its widely known (at least in the commercial world) weighing and inspection department, extends its service, for instance, to Valley

City, N. Dak., and to those two cities in Wisconsin, upon the industries in those States putting up a bond to secure that service. I did not know whether Mr. Smith knew of that or not. They are tested by Minnesota under the supervision of the State inspector.

The CHAIRMAN. Are these scales compared with the State standards?

Mr. NEALE. They are tested in this way: I have a steel testing car with a 19-foot base and a tonnage of 101,000 pounds, which is used for testing the large railway scales, together with standard test weights.

The CHAIRMAN. How did you get the weight of that car?

Mr. NEALE. It had to be originally ascertained on the best scales we had. We took possibly a dozen scales of the highest type that we had out there, all steel on concrete, and possibly of different manufacture.

The CHAIRMAN. Then your standard car is the average of that dozen scales; is that it?

Mr. NEALE. No; those dozen scales are expected to meet that car on any section.

The CHAIRMAN. I still do not understand how you got the absolute weight of that car.

Mr. NEALE. We had to do it by knowing the accuracy of those scales, by the original test of those scales by such means as we had at hand, and by watching the results closely from day to day, the State, the railroad company, and the scale makers each being represented by its expert.

The CHAIRMAN. How are these scales tested that you put the car on? I am trying to get back to your original standards. Are they tested with the State standards that you secured from the State of Minnesota?

Mr. NEALE. Certainly.

The CHAIRMAN. That is the point. The idea of a test car is a rather novel one to me, and I was simply interested to know what you went back to.

That finishes the regular reports.

Mr. KJELLANDER. I would like to say just one thing. Mr. Smith spoke of the pure-food commissioner. It is a very good thing to get information from the pure-food commissioner at the present time; but I do not believe that he should have charge of the administration of laws in regard to short-weight packages. The weight and measure of a package and the purity of its contents are separate and distinct from one another. I believe in the principle that quantity and quality go hand in hand; that they are the only two factors that should regulate the price of commodities; and not as the original-package men say, that quality and demand are the two things that ought to

regulate prices in this country. That is absurd. It must be quality and quantity.

I believe that the pure-food commissioners of the different States have all they can attend to without concerning themselves with weights and measures. I think that is one thing that the bureau ought to take into consideration when preparing laws, that the two lines of work should be kept separate and distinct from each other, and that the State food commissioner and the State sealer should have separate departments. They ought not to be connected, except probably to give each other information. If you want results in weights and measures work you can not get them under the State food commissioner.

Mr. HASKELL. Mr. Chairman, I think as the sealer from Chicago does, that if the weights and measures work is properly taken care of, the sealer has all that he can attend to, and he should not be connected with other work. The same is true of the other department mentioned by him. If one man has not only food to look after, but also the weights and measures, he can not, in my judgment, take care of either one satisfactorily to himself or anybody else. I think they certainly ought to be kept separate. There should be cooperation between the two. If the sealer of weights and measures should find any conditions that are unsanitary or detrimental to health, he should report the fact to the pure-food department, as we do here; but I think it would be a very unwise plan to connect the two departments.

Mr. SMITH. I am very glad to have the expression of opinion just made by the last two gentlemen. Our secretary of state asked me only about a week ago whether or no in my opinion the work of the two lines could be united. We have in Wisconsin a very effective food commissioner. He is president of the national association, and has made quite a name for himslf. He has 18 or 20 inspectors who are going about the State all the time, and convictions are very, very frequent. I suppose the secretary of state thought that if the two departments were combined, the State could save money by using the same inspectors. I did not express any positive opinion about it; but I believe, from what I have heard here, that I should oppose that sort of thing. I came down here to see how to lose my job. I do not want to be State sealer; I have other duties; but I do not want to shed the responsibility until I find a way of doing so that will lead to the welfare of Wisconsin.

Mr. THOMAS. Mr. Chairman, this last point is a very live question in Ohio right now. I have been asked that very question by the legislative committee that is considering the matter as to whether it may not be desirable to put the weights and measures work in the hands of the pure-food commissioner. We have in Mr. Dunlap a very efficient officer in that line. I have heard direct expressions, and

emphatic ones, from two cities in which weights and measures are well looked after, namely, Washington and Chicago. I would like to ask directly for an opinion on the same matter from Mr. Palmer, of Massachusetts, and Mr. Reichmann, of New York, particularly as they have had wide experience in those matters. Do you think it is consistent with efficient work on the part of the weights and measures official that he be primarily at the head of another branch of the work, such as the dairy and food commission?

Mr. PALMER. I do not, Mr. Chairman. I do not even believe a local officer should be connected with any other department. We have, in some towns in Massachusetts, sealers who are also inspectors of milk or inspectors of petroleum. I do not object to it very strenuously in the smaller places where one man can take care of it, for the reason that it is sometimes possible by the combination of these offices to make an office of sufficient importance to give a fair salary to a man so that he can devote his entire time to the work; and when he is out inspecting one thing he can also have his mind on the other work. But we tried it in the large cities and it did not work. Our first experience was in the city of Worcester, and we found, after trying it for two years, that the work had gotten beyond the control of the local inspector, although he had three assistants. It became necessary to divorce them, and the separate office of inspector of milk was created. In our State department we have no food commissioners, as in other States, but we have a very efficient State board of health, which is, I believe, one of the best in the country. Massachusetts is one of the original States which took up the question of pure-food inspection. That has been in existence for at least 20 years to my knowledge, and has a force of four or five inspectors who do nothing else but collect samples in different sections of the State for analytical work. We have an analytical laboratory at the statehouse.

In my judgment, the work is entirely different and should be entirely separate, conducted in two different departments.

Mr. REICHMANN. In New York the problem is largely an administrative one, and the tendency of the times is to concentrate as many offices as possible under one administrative head, and to have deputies looking after those particular interests. I believe that the time is coming, unless the crying need of weights and measures inspection produces the establishment of laws too soon, when every State will have a department of inspection, not only for weights and measures in the narrow and restricted sense, but for testing all kinds of material purchased by the State. This department should prepare the technical part of the specifications on which the State purchases its materials, as well as the testing of them afterwards; the two go hand in hand. The question of specifications and the testing of materials is all weights and measures, of which the weights and measures used

in trade occupy only a restricted field. It is almost impossible to-day to get comprehensive, fair, and technical specifications for any commodity that you wish to purchase, or any kind of building material. But the problem itself is absolutely nothing but an administrative one, and I believe that weights and measures, in the larger sense, needs one man to take care of it. Even in its restricted sense, it very often depends upon the person himself as to how much time it is going to take. Now, I know it to be absolutely impossible for one man to take care of the situation in New York. To be sure we have nothing but insufficient and antiquated laws, but under effective, comprehensive laws, treating it purely as an administrative problem, it will even then take all of a man's time; there is no question about it. I think success is accomplished only by making one thing your primary interest. It is only a trick rider who can ride two horses at the same time.

Mr. PALMER. Mr. Chairman, I do not think we should lose sight of the suggestion of the Bureau of Standards, to the effect that the sealer of weights and measures should also be charged with the enforcement of laws in regard to inspection of gas, electric light, and water meters. If that is included, the duties will be increased enormously.

The CHAIRMAN. I had hoped to say something to-morrow in regard to that, but, as Mr. Reichmann says, this other phase of the work is very pressing and very important, and in many cases it is all one official can attend to. The things Mr. Palmer speaks of are going to be put under the sealers, as well as the broader field of work—namely, the technical side of specifications, spoken of by Dr. Reichmann.

Mr. REICHMANN. The most remarkable thing is that it is so difficult to find anybody who knows anything about drawing up specifications.

Mr. SMITH. What is the legal unit of gas in New York?

Mr. REICHMANN. I do not know. That is under the jurisdiction of the public service commission. The public service commission has just called a meeting of all the gas companies and their own experts on the subject to establish rules and regulations in relation to the testing of meters. Gas and electric meters in the State of New York are under the jurisdiction of the same commission.

The CHAIRMAN. I think we can answer that to-morrow morning at the bureau. You may be interested to know that an investigation under a special fund is now under way at the Bureau of Standards. Last year Congress gave us two special funds; one for weights and measures investigation, and the other to make an investigation of the photometric and calometric value of gases. The latter is also under way, and the public service commission of Wisconsin has been in correspondence with us and also some of the officials in New York.

Mr. SMITH. Can you report on those things?

The CHAIRMAN. No; but we can give you some definite information. It has taken us six months to get the apparatus together, and the calometric measurements are just being made now.

Mr. GOODWIN. Mr. Chairman, while Mr. Smith was reading the law regarding the sealing of weights and measures in his State I noticed one word which I think is dangerous in any law. I refer to the word "willfully." As his law is now framed, I believe it is an impossibility to convict. I have hear this argued by eminent counsel pro and con. The law of Rhode Island as it was put before the legislature read "willfully," and it was contended that it would not be possible to convict with the law framed in that manner, and it was finally changed to "knowingly." A man is not supposed to be so ignorant that he does not know that he is doing wrong. If he sells 14 ounces of butter for 16 ounces, if he has any intelligence at all, he knows he is doing wrong. Now, the word "willfully" in the Wisconsin law, in my opinion, would make the law null and void. I do not believe any convictions could be obtained under it.

Mr. SMITH. We have actually convicted a number of people under this law.

Mr. GOODWIN. How was it possible to prove that the man had willfully committed the offense? That is the question that came up in our State, and I merely tell you the reasons why we changed our law.

Mr. PALMER. We have the same difficulty in Massachusetts, and we will have that word stricken from the statutes. The chief plea one of our attorneys made in a case I had last Monday in court was the fact that his client did not knowingly violate the law. He said, "That is the fundamental principle of the old English law, that you must prove that there was intent." I am not an attorney, but I know that in two or three cases great stress has been laid on the point in question.

Mr. SMITH. Have you had many convictions?

Mr. PALMER. We have obtained a conviction in practically every case we have had.

The SECRETARY. Mr. Chairman, without going into much detail, I would like to go over very briefly the ground covered by the bureau weights and measures inspection up to date. I expected to do this at the bureau, where I have a map showing the different towns and cities visited, but that is not necessary.

Up to the present time inspections have been made in 22 States and 67 cities, an average of 3 cities to a State; so you see that the ground has not been very completely covered. At the same time, the work that has been done has been thorough and, considering the time that has been devoted to it and the number of inspectors, the progress has been very satisfactory.

The States and cities covered are as follows:

Alabama:
- Birmingham.
- Montgomery.
- Mobile.

Connecticut:
- Bridgeport.
- New Haven.
- Hartford.

Delaware:
- Wilmington.
- Dover.
- Georgetown.
- Milford.

Georgia: Atlanta.

Illinois:
- Chicago.
- Springfield.
- Pana.

Indiana: Indianapolis.

Iowa:
- Sioux City.
- Des Moines.
- Council Bluffs.
- Davenport.
- Dubuque.

Kentucky:
- Frankfort.
- Louisville.

Louisiana:
- New Orleans.
- Baton Rouge.

Maine:
- Portland.
- Augusta.
- Bangor.

Maryland:
- Baltimore.
- Cumberland.
- Elkton.
- Havre de Grace.

Michigan:
- Ann Arbor.
- Detroit (Wyandotte).
- Lansing.
- Grand Rapids.

Minnesota:
- Minneapolis.
- St. Paul.
- Duluth.

Mississippi: Jackson.

Missouri:
- Jefferson City.
- St. Louis.
- Kansas City.

Nebraska:
- Lincoln.
- Omaha.

New Jersey:
- Bridgeton.
- Atlantic City.
- Camden.
- Elizabeth.
- New Brunswick.
- Trenton.

Ohio:
- Dayton.
- Cincinnati.
- Cleveland.
- Columbus.
- Toledo.

Pennsylvania:
- Philadelphia.
- Pittsburg.
- Harrisburg.

Tennessee:
- Nashville.
- Memphis.

West Virginia:
- Charleston.
- Wheeling.

Wisconsin:
- Madison.
- Milwaukee.
- Beloit.
- Janesville.
- Superior.

As Dr. Stratton said a short time ago, one of the main objects of our inspection was to create interest in this meeting, and also to stir up interest generally in the weights and measures situation. The inspections are not, perhaps, from one point of view, as valuable as those made by Mr. Kjellander; that is to say, there were not as many inspections made of commodities actually prepared for sale or those sold, which after all, I think is the most important inspection that can be made; but such inspections are only valuable in case prosecutions can be made on the evidence gathered, and this the bureau did not have authority to do.

Up to January 8, the total number of scales tested was 2,194, of which 64 per cent were correct and 36 per cent incorrect.[1]

[1] Scales 3 or more per cent in error on 1 pound are classed as incorrect.

Total number of weights tested, 3,554, of which 79 per cent were correct and 21 per cent incorrect.

Total number of dry measures tested, 1,612, of which 59 per cent were correct and 41 per cent incorrect.

Total number of liquid measures tested, 147, of which 112, or 76 per cent, were correct, and 24 per cent incorrect.

Our inspectors also tested a large number of prints of butter, and packages of flour put up in bags, ready for sale. We have not had time to study these reports in order to draw any very reliable conclusions from them, but in a general way I think it can be said that in the cities where the inspection service is given support, conditions were very much better than where it is neglected. That, of course, might be expected. Another conclusion reached is that the ordinances in nearly all of the cities are not inclusive enough for the proper protection of merchants and consumers, and unfortunately most of these ordinances are not broadened by court constructions.

Mr. PALMER. May I ask if any weights, measures and balances tested and found incorrect had been sealed by the sealer?

The SECRETARY. Oh, yes; a great many of them. One of the worst cases was discovered on the last inspection made by Mr. Stimpson, one of our inspectors, who happened to run across two 2-pound weights in New Orleans, each of them over 3½ ounces light. They had been passed by the city sealer three or four weeks before they were tested by Mr. Stimpson. Our inspections show precisely what has been reported here by all the sealers, local as well as State. That is to say, we find a great deal of fraud, and a great many incorrect weights and measures everywhere. We hope to get this data in shape for publication promptly after the first of July, but just how much of it will be given in detail has not been settled. If there are any special questions which any of the gentlemen would like to ask now, we will attempt to answer them.

Mr. PALMER. Mr. Chairman, if the bureau is in doubt about how much of those reports shall be published, I hope that doubt will soon be removed, because I believe in publicity in these matters. I hope all the information the bureau gets will be given the widest publicity. In view of the conditions in Massachusetts, I want your report to be read over the entire State, so that the people will know that I am not the only crank on these things, but that the Bureau of Standards is behind me.

The CHAIRMAN. I would also say, Mr. Palmer, that every day our attention is called to things which are wrong. They are the same things, in another way, that you meet with in your work in the States. Our policy has always been to try to put the manufacturer or official concerned right first. That is to say, I do not think it would be proper for us to publish this material that we find until

the proper State or city officials have been informed as to our results. But if after their attention has been called to the true conditions, and they have had opportunity to correct them, they do not do it, then I would say publish it broadcast. However, we have not made any decision in regard to the publication of the data. It will depend largely upon what we get, and how useful we think it will be to publish it; but certainly every official will get the information that concerns him. I see no objection at all to that.

Mr. PALMER. You would simply state in a general way what you found; you would not mention the names of individuals?

The CHAIRMAN. No.

Mr. PALMER. Just another question, Mr. Chairman, for the guidance of future meetings: Could not some arrangements be made whereby the different delegates might have an opportunity to prepare papers, so that we would not take an entire day to report on conditions in the various States? Wouldn't that help things along a little?

The CHAIRMAN. I think so, and I would like to see more definite papers. I have noticed to-day that the tendency all along the line was to discuss a definite topic. Somebody mentioned milk bottles, and that subject was discussed then and there; and the same inclination was manifested in connection with other subjects. It seems to me we have reached a point where we can have definite papers and definite discussions on particular subjects, which the executive committee or the conference should decide are the important and burning questions. I think that we should have a few papers prepared by the men who are the best posted on those things.

Mr. HAZEN. From my observation of the gentlemen at the Bureau of Standards on the several occasions that I have visited that institution, it looks to me as though they were a pretty busy body of men, and we do not want to impose too much upon them. At the same time, if it were possible to have a prearranged program of these conferences sent out to the delegates beforehand, with the suggestion that these papers be prepared, it seems to me it would be quite a timesaver. I appreciate that it is putting a great deal on the gentlemen who have this work to do, but if something of that kind could be brought about, either through a committee or a gentleman here, it seems to me it would be very helpful in saving time and in reaching the more important things that we wish to reach at these conferences. I merely offer that as a suggestion.

Mr. REICHMANN. Mr. Chairman, I move that the suggestion be referred to the executive committee, and that the committee be given power to act on it.

Mr. HAZEN. I make that as a motion, then.

Mr. REICHMANN. I second that motion.

Mr. GOODWIN. Do you mean that the vital questions that we are to discuss shall be prescribed beforehand, so that we may write briefs on them?

Mr. HAZEN. Have the program, as far as possible, laid out beforehand and sent to the respective delegates, with the request that they prepare briefs, preferably written briefs, to be presented as their reports. I think it could be done in half the time that it takes at present and much more intelligently.

The question was put and the motion carried.

Mr. SMITH. Mr. Chairman, I have a resolution which I would like to offer at this time. It is right in line with some of the recent statements that have been made.

Whereas the investigation now being made by the Bureau of Standards as to the conditions regulating trade weights and measures throughout the country has been of great assistance to the State and local sealers; and

Whereas the all-important question of the cost of living is one that is vitally involved in the question of correct weights and measures;

Therefore be it resolved, That it is the sense of this conference that the appropriation made at the last session of Congress for the purpose of investigating the condition of weights and measures throughout the country be continued.

It seems to me, now that we are discussing this matter, that it is the proper time to bring up this resolution for the continuance of your policy; and it seems to me that the unanimous request of this convention might have considerable weight in inducing Congress to carry out this program. I am very much in hopes that you will feel that this is the proper time to act on this, and that the action taken will be favorable.

Mr. REICHMANN. Mr. Chairman, I would like to speak in regard to that resolution. I would like to offer the suggestion that the resolution be handed in now, but that Director Stratton be given an opportunity to look over it carefully, and that we vote on it to-morrow morning, so that if it be necessary for him to change the wording of it so as to appeal to the individual members of the committee he may make such alterations. The director will undoubtedly have some suggestions to make that will make it even stronger.

The CHAIRMAN. I have looked over the resolution, and I do not believe I could improve upon the wording. I think it is entirely proper. It would be in order for two or three of you, those who are interested, to see the chairman of the Appropriations Committee and tell him your views in regard to this.

Mr. REICHMANN. Who is the chairman?

The CHAIRMAN. Mr. Tawney, of Minnesota. I have never encouraged anything of this sort, and if you go I want you to go of your own accord. I would not have him think for a moment that I am organizing a lobby, because the bureau has no better friend than Mr. Tawney. I do not think, however, that he would resent your

stating that you are interested in the work that has been done and would like to see it continued.

Upon motion the resolution was unanimously adopted.

Mr. REICHMANN. Mr. Chairman, I now move that the secretary appoint a committee of three to wait upon the proper authorities in Congress to-morrow and present the matter to them.

The motion was seconded and unanimously carried.

The CHAIRMAN. That completes the business that we were to take up to-night. Is there anything further?

The SECRETARY. Just one other thing. This telegram was received some time during the afternoon, and in view of the efforts made by the gentleman who sent it to be present, I think it ought to be read here. It is dated Chicago, February 25, 1910, and reads as follows:

Presiding Officer, Annual Conference on Weights and Measures:

Just got here. Storms and delays en route prevent my reaching you in time to participate in your work. Deserve to be recorded present for my effort.

JAMES H. WALLIS,
Delegate from Idaho.

Mr. HASKELL. Mr. Chairman, just one word in regard to this committee that is to call on the Appropriations Committee. You, in my judgment, expressed an idea that is very important; that this is a conference matter and does not in any way come from the Bureau of Standards, or from the director especially. The committee should be composed of men from Idaho or Minnesota, or some of the States in the distance, and it should be made clear that they represent the conference, and not in any way bring the officials of the bureau into it.

Mr. NEALE. Mr. Chairman, I would state to the secretary that Mr. Quist, from Minnesota, is well acquainted with Senator Knute Nelson and Mr. Tawney, and would make a very good member of the committee. I simply offer that suggestion to the association.

The SECRETARY. Mr. Chairman, I am ready to appoint that committee. I will appoint Mr. Quist, of Minnesota; Mr. Hazen, of Vermont; and Mr. Kjellander, of Illinois.

The CHAIRMAN. I want to caution this committee to make it perfectly plain to those gentlemen that you are not being sent there by the Bureau of Standards, but by this conference.

Mr. THOMAS. Mr. Chairman, I would like to ask when the Appropriations Committee will report.

The CHAIRMAN. That is a little uncertain. It will probably report in a few days.

Mr. THOMAS. My purpose is this: I think it will be wise for us, representing our States, to write to each member of the congressional delegation from each State in support of this proposition, so that our support may be indicated, not only to the Appropriations Committee, but to the body of the House and to the Senate; and I shall

take pleasure in letting the entire Ohio delegation know that that thing is desirable for Ohio.

Mr. REICHMANN. I do not know how that works in Congress here; but I know that with the State legislature a number of letters of that kind immediately creates a spirit of antagonism in some person who might otherwise simply pass the matter over. It immediately gives him an idea that there is an organized effort on the part of some one; and I think it is a great deal more effective to sit quietly in the committee room with the chairman of the committee and talk to him.

The CHAIRMAN. My experience has been, Mr. Reichmann, that you are exactly right. There is this to be said, that no Representative ever resents a suggestion from one of his constitutents, and it is perfectly proper to write to your own Congressman; but the moment it goes outside of that, they at once compare notes and say that it is an organized effort.

Mr. THOMAS. Mr. Chairman, I quite agree, in general, with the remarks just made. At the same time, where one writes as a private individual the case is quite different from the case we have before us now. We who are State sealers are made so under State law, and we represent, not our congressional district or our senatorial district, but we represent our whole State; and for that reason I felt inclined to let the entire Ohio delegation know how the situation affects me, as the man in charge, by State enactment, of the interests of the weights and measures of the State of Ohio. It is an entirely different case from the ordinary private individual writing a letter to the Congressman of a State. If I were to write in that capacity I never should think of writing to anybody but the Congressman from my own district; but it was because of the other view of the case that I made that suggestion.

The CHAIRMAN. Yes; I see that distinction.

Mr. REICHMANN. Mr. Chairman, I move we adjourn until to-morrow morning at 9 o'clock, at the bureau.

The motion was duly seconded and carried; and accordingly, at 10.30 p. m., the conference adjourned until Saturday, February 26, 1910, at 9 o'clock a. m.

FOURTH SESSION (MORNING OF SATURDAY, FEBRUARY 26, 1910).

The conference reassembled at 9.30 a. m.

The CHAIRMAN. We have before us what promises to be one of the most interesting papers we have ever had. As I said last night, we hope next year to have a more definite program laid out beforehand. I wish that every mayor and governor in the country could be here and see this exhibition. I have sent word for all of the members of our weights and measures divison of the bureau to see it, but they are more or less familiar with faulty apparatus. The pity is that only a few of us who are in sympathy with this work can be here to take advantage of it. I will introduce Dr. Reichmann, who will talk to us about false weights and measures, numerous examples of which he has gathered and brought here for your inspection. I shall ask him to take all the time he wants.

Mr. REICHMANN. Mr. Chairman and members of the conference, I will be very brief and probably will not talk over 15 or 20 minutes. I started out with the idea that if the Government establishes standards of weights and measures it is equally important that the Government should maintain the uniformity and honesty of those standards; that the underlying idea of having standards was to secure honest weight and measure, not only in the apparatus, but in the commodity delivered. And I believe that one of the fundamental difficulties is that so many of our courts and so many of our lawyers and so many of our people in general have misinterpreted two very important words. They use them synonymously and confuse them. I refer to "liberty" and "license." Now, we all know that liberty means freedom under certain restraint, restraining one person from injuring another; and only when those restraints become excessive do we have a case of tyranny. But license means alsolute lawlessness, and in the matter of weights and measures in this country we have license and lawlessness; and I think it is high time that we do not extend an invitation to everyone to give short weight and measure who wishes to do so. Very few States have taken up this matter, and in those States where it is to be taken up, these delegates are not going to convince their legislators, their governors, or their people of the necessity of having regulation of weights and measures in a year. They are not going to do it in two years. It is a long, slow process, and you have first of all to get public sentiment.

Most people have an idea that they have some visual concept of quantity; that they can look at a basket or a bottle or a measure and see what that basket, bottle, or measure holds. As a matter of fact, they have not. Furthermore, most people have very short memories; and the first essential thing to do is to arouse public sentiment. One of the simplest ways to do this is to get out on the engine with the engineer. Don't ride on a freight train all the time. Don't always ride in the caboose. Most people in public life, in public offices, like to ride in the caboose on a freight train, for the very simple reason that the caboose is the place where they can sleep. But let some of us get out and ride in the cab with the engineer, as Mr. Kjellander has done. And I want to say that one of the few ways to arouse public sentiment is to get the newspapers interested in the subject. It is a very simple matter if we go about it in the right way; because it is the one subject in which you can absolutely never make a tactical blunder. It is the only subject in which every man, just as soon as you ask him, "Are you in favor of honest and uniform weights and measures?" invariably says, "Yes." Then, if you present that to the newspaper in the form of square dealing, and tie up the widows and orphans to it, every newspaper will be glad to take it up. I have yet to see the newspaper man who is not willing to take the matter up and who will not give the person who agitates it every opportunity. Every once in awhile, to be sure, some one or other will make some little blunder; but let that go. All of us are liable to make mistakes, and if a newspaper does happen to knock you, let it go at that. But do not write that newspaper a letter and get into a newspaper discussion. I see there is a newspaper reporter here, and he will substantiate the statement that what a newspaper would like best of all is to have a newspaper discussion. But do not do that. One newspaper can reach a hundred thousand people where you can reach only one, and if you do not have the confidence of the newspapers you may just as well go out of business. As I tell the Associated Press men up there in Albany, "If you fellows want to get my scalp simply say so and I will step down and out," because that is the end of it.

In a report I made two years ago I arbitrarily classified human beings into those who were inherently dishonest, those who had acquired dishonesty, and those who were honest. The percentage of people who are inherently dishonest is very small. The percentage of people who, without regulations, have acquired dishonesty through the stress of competition, is very large. But if there were proper inspection or proper restraint, this class would be perfectly honest and straight.

Now, the first function of every form of inspection is to protect those who have acquired dishonesty and show them the right path,

and then get after those people who are "crooked"—who are inherently dishonest. They are the ones for whom we build prisons; they are the fellows for whom we are maintaining an enormous police force in every city and every State. Aside from that, the mere presence of an official inspector deters a great many from giving short weight and measure, even though often no inspection may be made. Three-fourths of the strength of the police department in a city lies not in the arrests or convictions it makes, but in its mere presence and the fear that it may make arrests; and I think that is the principle on which every successful weights and measures inspection is based.

I personally am thoroughly opposed to a fee system in any manner, shape, or form. If a weights and measures inspection is a protection to the legitimate dealer, as I maintain it is, and we have proven in every case that the legitimate dealers are all in favor of it—it is no more than right that they should have that protection out of the general tax budget; and every dealer is against this special form of taxation called fees. Furthermore, every inspector should have sufficient territory and sufficient work to do to make that work his primary interest. Giving an inspector of weights and measures two or three minor offices, or giving him a position where he will only have to inspect 8 or 10 stores, is absolutely ridiculous, because he can not acquire sufficient interest in the subject. Give him sufficient territory to keep him busy.

But with all that, there is one more very essential requirement, and that is, that every officer of every kind should be compelled to make a sworn report to the appointing power so that the people can know what he is doing. Now, making a sworn report is like signing a death warrant—you are going to be very careful what you are putting in it, and the people will very soon know what you are doing. As a rough estimate, I will say that 95 per cent of all sealers of weights and measures never make a report of any kind. That is absolutely wrong. The question of a State department of weights and measures is important and highly important. It has been brought out here repeatedly that there should be a separate department of weights and measures; that it should not be coupled with any other office. If you have a State department of weights and measures it is necessary to have some sort of system of administration, and it is largely only a problem of administration to secure the best results. If you have two, four, six, or a dozen inspectors, and you have no report from those inspectors, and no system of finding out whether those inspectors have actually done their work, you have signally failed in administering that office, and it will soon degenerate to what it is in a great many places, simply a sinecure. It will simply degenerate into an office having a small salary, and the holder paid that salary to see that no one runs away with the standards.

The idea is entertained by some that we have some efficient laws in relation to weights and measures in New York State. I wish to emphasize the fact (though it has been brought out here) that we have absolutely none. Our laws are all about 75 years old.

In New York State we now have six inspectors and every inspector is required to make a daily report. Those inspectors always work in pairs. They go to different parts of the State and go there unexpectedly. No one knows when they are coming or when they are going out. But we always work with the sealers. A State office should work with the sealer, and get the cooperation of all the sealers of the State. You have to use exactly the opposite method from that which a Federal Government department would use in sending out inspectors to get evidence as to what the conditions are. I think the inspectors who have gone out from this bureau have pursued exactly the right policy to get at the evidence, but as an administrative question you have to work with the sealer in a State, which is altogether a different problem. I think that in a number of places great mistakes have been made. Some of them are trying to use their detective functions to find out whether a local man is doing his work or not. I think that is absolutely wrong. Assume every one of your officials to be a gentleman until he is proven to be otherwise, because that is the only way you can get the cooperation of the sealers, and you absolutely need that in order to have uniformity.

Furthermore, by shifting your inspectors you can easily tell by comparing reports whether they have actually done their work. Of course, making a daily report is a simple matter if you word it so that the man fills in numbers and that sort of thing. He can go home at the end of a week and fill in a lot of reports. In short, you have to be always looking for results, and the only way to do that is to have a sufficient number of inspectors so that you can shift the inspectors and compare the notes of one set with those of another.

The State department in order to produce uniformity should issue specifications of the kind of apparatus to be used. It should issue lists of apparatus needed in a local office. It should work with the city or with the county to try to get them something that they can use easily and efficiently, and if possible save that community money. As an illustration, we have a number of counties where they have some standards that have been used for years. Some of those standards are in very poor condition. We could easily condemn the whole lot, and they would then have to go to the expense of getting an entirely new outfit. Very often a number of pieces, such as dry measures and liquid measures, can be easily repaired. In those cases we always make a recommendation like this: "Do not spend $75 or $100 for a new set; but spend $10 or $15 to have these repaired, and we will adjust them for you." In other words, you have to show the

various municipalities and counties that you are trying to help them, and that it is to their interest. It is a very simple matter, you know, to make out a list of apparatus and simply swing the "big stick" and say, "You have to do this." But then you do not get that cooperation.

Yesterday Mr. Palmer spoke of a system of warnings that they had just adopted. We have been using that system for the last three years, and it is of more benefit than almost anything we have used. I primarily started out to use such warnings, because I have to show knowledge on the part of the dealer. By giving a man a written warning, either in person or by sending it to him by registered mail, marking the letter "personal" on both front and back, we have evidence that he had knowledge that some particular piece of apparatus was wrong, or that some clerk was putting up short packages. But the person who is inherently honest will in every case observe a warning of that kind, and we have very little trouble about that. The great difficulty is, as I said before, to weed out those who are actually the guilty parties.

I have brought with me a few samples of typical kinds of measures that can be picked up. Some of these perhaps are different from those in your territory, and perhaps have greater shortages than some you would find in your sections; but I dare say that in every city where there is not an efficient inspection of weights and measures, you can find apparatus like this if you know how to look for it. What I mean by knowing how to look for it is, that when you look at a measure, do not stand half a block away (with some of these you can tell they are short half a block away), but look at all sides of it and particularly the inside of it, the side that the people never see. I will not discuss these measures; they speak for themselves. I will only state that if you get a collection of measures of that kind they tell more than two hours of talk will tell. They are more convincing. I used measures of that kind at the State fair in Syracuse. The attendance at these fairs on the governor's day is generally in the neighborhood of 250,000 people. We had a large booth, and I lined the back of it with faulty measures and weights of this kind. In my report I have a picture of the exhibit. The people stood 10 deep in front of the booth, very much interested in these concrete examples of short coal bags and every conceivable kind of short weight packages and faulty instruments. About every 15 minutes we had to clear out the crowd to allow another crowd to come in.

The SECRETARY. Dr. Reichmann, I would suggest that you show how these measures are short—I mean just a few of them. I think they are rather startling.

Mr. REICHMANN. Well, I will take up a few of them and show how they are used. I brought with me copies of instructions to sealers, copies of our laws, copies of my last report, and copies of one of my talks. I have about 10 such talks and this one that I brought with me gives an outline of what I consider the weights and measures problem. Then I have a little pamphlet entitled "Hints to Housekeepers." I got out 5,000 of those for the fair, and they were all gone by Wednesday, with the three largest days still to come. We have had to print, I think, 6,000 of those since that time, which shows you how much interest the mere seeing of the concrete examples excited. People write for them, and sometimes want a dozen or two dozen, some of them as high as 50 copies. That shows what we are doing in the way of arousing public sentiment.

[At this point Dr. Reichmann exhibited a large number of faulty types of weighing and measuring apparatus, and also many pieces of apparatus which had been intentionally made incorrect by the merchants who had been using them to defraud their customers by giving less than the quantity represented by them. This exhibit has been collected by the New York State department of weights and measures in all parts of the State.]

Among the apparatus I have here are scales of the even-arm type, which delivers amounts according to the weight on the platform. Cheap scales of this class are, in nearly every case, deliberately used to defraud the customer. Other scales of the spring type have adjusting screws which can be very quickly manipulated by the dealer so as to deliver less than the indicated amount. Other spring scales have sliding faces which accomplish the same result.

Many ingenious frauds in dry measures are found. Some dry measures are constructed with false bottoms which reduce their apparent capacity from 50 to 75 per cent. Others are reduced in diameter by relapping; and measures which have been reduced in height, and measures with false sides are also here. This is a liquid measure which has been reduced in capacity by a heavy coating of paraffin in the bottom, while deep dents and displaced bottoms accomplish the same results in others.

Weights are made short by various amounts by removing the lead fillings, by sawing off part of the bottom, by drilling, and in other ways. In one case cans of various sizes partially filled with lead and sand were found in commercial use as weights by the New York State department of weights and measures.

Reductions in the size of package goods are shown by two packages of a well-known cereal. The package upon sale to-day can be placed inside the former package, although the changes in dimensions would hardly be detected by the ordinary purchaser. Both packages retail at the same price.

There is one other matter to which I wish to refer. I have three bills in the legislature, one of which, a net content of container bill, I do not believe will receive a hearing. If it does I shall go to Albany with some 75 others and oppose the bill. There will be nobody to appear in favor of it. I shall oppose it on the ground that similar legislation will be considered by Congress, and that it ought to come through Federal legislation.

Mr. KJELLANDER. I beg your pardon; what did you say you were going to oppose?

Mr. REICHMANN. The net content of container bill. You call it a net-weight bill, but I do not call it that because I think that is a misnomer.

Mr. KJELLANDER. Why are you going to oppose it?

Mr. REICHMANN. Because I think that ought to come through national legislation, in the first place, and we ought to use our efforts to get it through here.

Mr. KJELLANDER. That is true, but I do not think I should oppose it, just the same.

Mr. REICHMANN. There are other features in that bill of which you do not know.

Mr. KJELLANDER. If it is a good net-weight bill, I would never oppose it in my State, for the reason that I am in favor of anything that benefits the public in my State or in any other State.

Mr. REICHMANN. Certainly; but the question is, How are you going to get such legislation?

I have an outline here of the law at present in New York, and what we wish to accomplish with our bills. I put these side by side, because so many people were asking me about these bills, and I could not use the time of a stenographer to answer their letters. In that respect we have modeled the office of weights and measures after the other State departments in Albany. Every department is efficient, and it is always a question of dollars and cents. If it is cheaper to have a letter of that kind printed, where we have a number of inquiries, than it would be to hire a stenographer, we use that method in every case. In other words, none of our State offices create unnecessary positions, and that is a very desirable condition of affairs.

Mr. KJELLANDER. I would like to say a word in regard to the investigation now being carried on by the Bureau of Standards. In the first place, I believe that the bureau ought to ascertain the true conditions in every city visited, and then afterwards show the city sealer whether he is right or wrong, and then cooperate with him and show him how he can be benefited by the instructions of the Bureau of Standards. I believe that every city sealer ought to welcome any investigation of that kind and stand or fall upon his record. And I think, as I said yesterday, that the Bureau of Standards ought

to be and must be the fountainhead of weights and measures and the fountainhead of our laws governing original packages.

Now, as to the original-package question: The retail grocers throughout the country are interested in this matter of a net-weight-package bill, and I have in my hand a speech that the chairman of the National Butchers and Grocers' Association made in Cairo, Ill., a few days ago. Speaking of the cost of living, he said that there is no question in his mind but what the increased cost of living is due to the condition of the original packages. I will just read a few lines of his speech:

> I further believe that the present tendency of manufacturers to market their products, whenever possible, in containers at an exorbitant price is one of the causes of higher prices in foods and foodstuffs. These goods are exploited in a great many publications, and the consumer is invited, through various reasons, to purchase these articles in original packages, regardless of the quantity contained therein. I am fully convinced that the consumer will, by buying goods in bulk, save in many instances as high as 40 per cent on his purchases.
>
> These facts bring strongly to my mind the great effort put forth to divert this class of business to the package proposition; and I want to assure you that the reason for so doing is not for the benefit of you as retailers nor any deep concern for the consumer's welfare, but that they, the manufacturers, may have absolute control of the situation in this country and be in a position, after gaining, if possible, the confidence of the public, to have these packages get smaller and smaller every day.
>
> In speaking of the package proposition I want to call your attention to the fact that the great amount of money spent in advertising is deducted from your profits—from the retailers' profits. You pay the advertising bill, and the consumer pays the dividends. The policy of placing a price anywhere from 95 cents to a dollar per dozen on an advertised 10-cent article is not giving the retailer a square deal. The profit is too small. In many instances the question of profit is a question of location.

As I said yesterday, this is one of the main things that we have to work for, and every one of us here to-day ought to try to help the Bureau of Standards to pass this original-package bill, even though the bill is not just as we would like to see it because of the word "approximate" in it, which practically means nothing. You delegates ought to take it up, everyone of you, before you leave this city; and if you can not see your Congressman before you leave, you ought to write to him and try to get all the influence possible to bear to get this bill through Congress. Because if we once get this bill through, even though it is not exactly what we want, we can probably amend it. The main thing is to get a start. If your Congressman says to you, "I am not for this bill"; and if you have not enough influence with him to impress upon his mind that this is for the public benefit, arouse some interest in your particular neighborhood; show the people that this is a just cause, and that your Congressman ought to work for it. In other words, educate the people; arouse them so that they will tell their Congressman, "You must vote for that bill; it is to

the interest of us consumers." It has been said that the manufacturers of original-package goods have the strongest organization in the world; that they have the capital behind them. It may be true, but capital is nothing, gentlemen, if you can arouse public sentiment. Capital can not stand against public sentiment. Therefore I say to you that it is up to you to go into your States and into your immediate neighborhoods and get the people aroused.

I am surprised that the public press of this city—not criticizing the press of this city at all—had not any more to say in regard to our convention than appeared last night. The newspapers ought to be aroused. They ought to be talked to and made to see that this is for the benefit of the public; that this is probably the beginning of one of the greatest undertakings in this country. And I think that the great part of the press is with us, or will be with us, on this proposition before we get through. The press of the city of Chicago has stood nobly by me in my undertakings. The men of the press are fair-minded, and if the matter is put to them in the right manner they will go ahead and do what is right and show the consumers that they must rise in their might and crush these trusts or monopolies that are combining to-day on practically all of our package goods.

I have in my possession letters showing where combinations have practically fixed the prices of these package goods in various lines. That is the reason, more than anything else, in my opinion, for the higher cost of living to-day, and it behooves every one of us, whether we are State sealers, whether we are city sealers, or whatever we are, to go to the public press and ask them for support. And if you ask the public press of this country in the right manner, they are going to give you that support. I thank you.

The CHAIRMAN. Gentlemen, the next item on our program is a discussion of the two bills pending. First, as to the original-package bill, I think that Mr. Kjellander has said all that any of us could say on that subject, and he has hit the nail exactly on the head, namely, that each of you should get out and work for it. The question of the word "approximate" does not trouble us at all. I am sure we can agree on that. A great many people take the stand that the Bureau of Standards ought to be in a way judicial, not active and legislative. We are not going to take that stand for a minute. There is not a man in the bureau who believes that he should not be active in pushing proper legislation. This package matter is pending and it only needs you to get behind it and push it through. The bureau will do everything it possibly can. There is very little objection to it on the part of the legislators, but you know where the objection will come from.

I want to say that I attended a meeting before a Senate committee the other day in regard to paints, and I think there were at that

meeting 50 or 60 representatives of the leading paint men. They said, to a man, that they would stand right behind any bill that contemplated the requirement of full net weight in packages. That is one very large interest in this country that has promised its support, and I have no doubt there are a great many others.

The other matter pending is a bill which we were asked to introduce regarding the manufacture of false weights and measures, making it a penal offense to manufacture or put on the market such measures as these I have before me. I am not going into detail, because that is the sum and substance of the bill. The bureau will take that up and push it. The chairman of the Committee on Weights and Measures has agreed to introduce the bill, and there will be no difficulty.

The other bill that we had drawn up was in regard to a model State law; but there are so many things in it that were found to be defective, in the light of our experience now, that the executive committee has decided not to push that in its present form, and I agree with them. I think that if we take these other two bills and push them through, we will have our hands full, and that we ought to have another year to consider that national law. However, if it is your idea for us to try something new, we will do it. It is entirely in your hands.

I want to state that it is entirely in order for you to offer any criticisms on either of these bills we are now to consider. If you do not like the word "approximate," say so. Do not think for a moment that we object to criticism.

Mr. Thomas. Mr. Chairman, there are two things that to my mind are serious objections to this bill, and another that is not quite so serious, but which I would rather not see in it. Personally, so far as the State of Ohio is concerned, I would much rather a bill like this should not go through Congress. I would rather they would let Ohio work on the plain, simple proposition of requiring the stating on any package or container of the net weight of contents of that container, leaving out the word "approximate" and leaving out the words "numerical count." Those two things are, to my mind, serious objections to the bill. On the other hand, I do not believe, as I have stated before, in this question of tolerances, for the only change that I can conceive of at present as taking place in a package of foodstuffs is that of the loss of water by evaporation, and I have contended here before that a man has no business to attempt to sell water to his customer. The customer wants food, and he is entitled to get full weight and measures in the form of food when he buys it. Therefore I am against the bill on that account. I would rather we should have a chance in Ohio to work out this proposition ourselves, uninfluenced by previous action on the part of Congress such as this. I

think that Congress, if it passes a bill of this kind, ought to put a straight, simple requirement that the net weight of contents of the container shall be stated in plain print on the container; that is, the net weight or measure, not "count." And furthermore, the words "approximate" and "tolerance" should not appear. I say this for the reason that we have already in Ohio a law (sec. 7072 of our Revised Statutes) which requires that all manufacturers putting up goods usually sold by weight in packages shall put on the container the gross, tare, and net weight of contents, under penalty of a maximum fine of $500 or imprisonment for six months, or both, for failure to so mark the goods. We have gotten that far; now, let us see if we can not go further.

Mr. REICHMANN. Has any attempt been made to enforce it?

Mr. THOMAS. No; but we have a staff there, and what we want now is a provision to enforce what we already have.

Mr. YODER. Mr. Chairman, I agree absolutely with Mr. Thomas. I do not think that bill is worth anything, because we already have approximations and tolerances. Who is going to enforce them afterwards?

Mr. REICHMANN. Mr. Chairman, I move that the chair appoint a committee of three to consider this proposition. A number of these gentlemen have not been up against this proposition of having a net-weight-of-container bill, and they do not know what arguments are going to be used. I fully believe that Congressman Mann had some good reason for insisting on that language, and let us find out that reason the first thing. If you do not put the words "numerical count" in the bill, you will never get it through.

The CHAIRMAN. Do you mean simply to consider this and report?

Mr. REICHMANN. Yes, sir; with power to act.

The CHAIRMAN. I would like very much to have four or five of you gentlemen who know exactly the conditions come face to face with the opposition. That is what is needed. Now, you can consider this if you like, and let it go over till next year; but when the other side, which is thoroughly organized, brings this bill before Congress, which they will, they will be there in force (the paint makers had 50 or 60 people there), and it will be necessary to have five or six people there to meet them. We will have to have the men there who can answer the questions of the chairman of the committee right on the spot. I will arrange for the hearing. We can have it at any time.

Mr. REICHMANN. And they will have to be of one opinion. If those five or six men can all agree on the bill, it will go through; but one little hint of disagreement will kill the whole proposition.

The CHAIRMAN. In order to have a proper geographical distribution, you ought to have at least five on that committee.

The SECRETARY. Mr. Chairman, I certainly hope that this bill or some similar bill will be introduced right now. We do not want to wait another year before anything is done.

Mr. KJELLANDER. I think that Dr. Reichmann has stated the position in a very good way; that the committee to be appointed meet and carefully consider the bill and come to some agreement, and then go before the congressional committee as a unit.

The CHAIRMAN. When the paint makers appeared before the Senate committee the other day, the chairman of the committee said, "Gentlemen, who represents you?" They said that Mr. So-and-So represented them, and he presented a very carefully prepared argument. Their whole procedure was organized. I got a lesson there that I never had before. Are there any further comments?

Mr. KJELLANDER. I move to amend the motion to have a committee of five instead of three.

The motion was duly seconded and carried.

Mr. REICHMANN. I move that this conference adopt the following resolution:

That the National Conference on Weights and Measures is thoroughly in favor of a net content of container or a net-weight bill being passed by Congress, and the sooner the better.

Mr. KJELLANDER. I second the motion.

The question was taken and the resolution adopted.

Mr. PALMER. Mr. Chairman, the committee on constitution and by-laws had a meeting last evening, and we considered it inadvisable at this time to draw up any more by-laws than we have; and we suggest that the matter be referred to the executive committee, or some other committee, to report at the next meeting.

Mr. REICHMANN. I move that we accept the report.

The motion was seconded and carried.

The CHAIRMAN. Prof. Thomas has a report from the committee on resolutions.

The secretary read the report referred to, which is as follows:

WASHINGTON, D. C., *February 26, 1910.*

The National Conference on Weights and Measures, assembled in its fifth annual session, expresses and records its great regret at the loss it has suffered in the death of one of its members, Capt. George H. Pettis, of Rhode Island. His presence and activity in former sessions added greatly to the interest and inspiration of the sessions. We esteemed him as a man and friend, and admired his zeal and fearlessness in the discharge of his official duties.

We extend our heartiest sympathy to those he has left behind.

(Signed) W. C. HASKELL.
(Signed) WM. F. GOODWIN.
(Signed) B. F. THOMAS.

Mr. PALMER. I move the adoption of these resolutions.

The motion was seconded and unanimously carried.

The CHAIRMAN. We will now proceed to the election of officers.

The SECRETARY. The officers to be elected are the president, vice president, secretary, and four members of the executive committee.

The CHAIRMAN. Nominations for president are in order.

Mr. PALMER. I move that the secretary be instructed to cast a ballot for the present chairman.

The motion was seconded and unanimously carried.

The CHAIRMAN. Gentlemen, I am highly honored by your action. I will do the best I can; but I hope the time will soon come when you will take this thing into your own hands; and I am willing at any time to surrender to your choice.

Mr. HASKELL. Mr. President, I move that the election of our present secretary be made unanimous.

The SECRETARY. Mr. Chairman, before that motion is put I would suggest that the vice president be first elected.

Mr. HASKELL. I will include the vice president and the secretary in the same motion.

The motion was seconded and unanimously carried.

The CHAIRMAN. I believe the present members of the executive committee are Prof. Thomas, Dr. Reichmann, Mr. Pettis, and Mr. Haskell.

Mr. REICHMANN. Mr. Chairman, I would like to be excused from serving on the executive committee.

The SECRETARY. I hope Dr. Reichmann's request will not be listened to.

The CHAIRMAN. We all hope that; but he may have some good reason for his request.

Mr. REICHMANN. I have a perfectly good reason, which I do not care to state here; and I hope that my request will be granted, because otherwise I should have to refuse to serve, and I do not approve of a person's refusing to accept a place when it is offered him.

Mr. PALMER. Mr. Chairman, I nominate Mr. Kjellander, of Chicago.

Mr. REICHMANN. I nominate Prof. Thomas, Mr. Haskell, and Mr. Quist.

Mr. PALMER. Mr. Chairman, I move that the secretary be instructed to cast a ballot for these four nominees.

Mr. REICHMANN. I second the motion.

The question was taken and the motion was carried.

The SECRETARY. The secretary takes great pleasure in announcing the unanimous election of Messrs. Thomas, Haskell, Quist, and Kjellander.

The CHAIRMAN. Gentlemen, this completes our list of officers. Is there any new business?

I hope that the new members will take a few minutes to see at least the weights and measures department of the bureau. This afternoon the bureau will be open, and we shall be glad to have any of you return this afternoon if you have time.

Mr. PALMER. Mr. Chairman, I would like to bring up the question of an investigation of weights and measures on packages. I believe it has been taken up in Ohio quite successfully. Massachusetts is about to take it up, I understand, but I question whether any State investigation will accomplish the desired end. I think that Congress should do something about it, and since the chairman of the committee is a Senator from Massachusetts, it occurs to me that here is a very good opportunity to bring the matter to the attention of the committee, especially since it was referred to very distinctly by Secretary Nagel yesterday at this meeting, which gives the matter additional importance. Without making any motion, it seems to me that this convention ought to be recorded as in favor of an investigation as to the weights and measures on packages of foodstuffs, etc., inasmuch as it effects the high cost of living; and I would like to see the association take some action in the matter. I think, as a matter of fact, that the Bureau of Standards should be called upon by the Senate committee to make investigations along these lines. The head of the bureau probably would not take it up unless he were asked to do it; but I believe that if that could be brought to the attention of the committee by resolution or something of that kind, the committee itself would be only too glad to avail itself of the privilege of having the bureau conduct such an investigation; and I believe the results would be astounding to the public.

Mr. REICHMANN. Mr. Chairman, I am opposed to such a resolution. I think that the director, knowing the sense of this convention, would naturally call that to the attention of the committee, and that a request to pass such a resolution might imply that we do not trust his intelligence, and that we have to call his attention to that fact. I maintain that if they investigate anything, they will have to take that matter into consideration. As a matter of fact, that is the only thing that has increased the cost of living that they can remedy. The other causes are beyond their control.

The CHAIRMAN. Mr. Reichmann, may I make a suggestion?

Mr. REICHMANN. Certainly.

The CHAIRMAN. It seems to me it would be entirely in order for you to put your resolution in a little different form; for instance, that you believe that the use of false weights and measures is responsible to a large extent for the high cost of living. We will then present that to the committee, and it will open the whole subject.

Mr. REICHMANN. That it is the sense of this meeting that that is one factor?

The CHAIRMAN. Yes; that you believe that it is an important factor.

Mr. REICHMANN. Yes; but we do not want to suggest to them to take up the whole net-weight-package subject.

The CHAIRMAN. No; that would answer their purpose. I think that is one of the most valuable suggestions that has come out of this meeting. There are two committees now in Congress considering this matter, Senator Lodge's committee and another one, and I think it is only necessary to call their attention to it.

Mr. PALMER. That is what I wish to accomplish, Mr. Chairman.

Mr. THOMAS. Mr. Chairman, I move that it is the sense of this conference that the question of honest weights and measures is most intimately associated with the high cost of living now under investigation in State legislatures.

The question was taken, and the motion was carried.

The CHAIRMAN. I will appoint as this legislative committee—that is not a good name, but we will understand it—Mr. Kjellander, of Chicago; Mr. Quist, of Minnesota; Mr. Palmer, of Massachusetts; Dr. Reichmann, of New York; and Mr. Yoder, of Montana.

Mr. REICHMANN. Mr. Chairman, I would like to be taken off that committee. It will be impossible for me to serve.

Mr. KJELLANDER. I do not believe, Mr. Chairman, that it is fair that Dr. Reichmann should withdraw from that committee. I think he is heartily in favor of the proposition. He has probably investigated those conditions more closely than most of us here, and I think it is a duty which he owes to this association and to the public to serve on this committee.

Mr. REICHMANN. Mr. Chairman, I deeply feel my responsibility to the State and to this conference, but there are reasons why it would be impossible for me to serve, and I do not like to get up here and state that I refuse to serve. So I hope the chair will grant my request.

The CHAIRMAN. Let me make this suggestion, Dr. Reichmann: In case there is a hearing and this committee desires you to go before the congressional committee, are you willing to do that?

Mr. REICHMANN. If "approximately" possible, I will.

The CHAIRMAN. I think it would be too bad for them not to have the advantage of your experience. So, with that understanding, I think perhaps we had better put some one else on the committee in Dr. Reichmann's place.

Mr. KJELLANDER. I do not think so. I think he ought to be on the committee.

The CHAIRMAN. Well, we will let it stand for the present, and if necessary we can change it afterwards.

That finishes the regular business.

Mr. REICHMANN. Mr. Chairman, I wish to offer the following resolution:

Resolved, That a special vote of thanks be extended to the Bureau of Standards for their entertainment of this convention, and for the many courtesies extended to the delegates.

The motion was seconded and unanimously carried.

Mr. REICHMANN. Mr. Chairman, I would like to offer another resolution:

Whereas our stenographer, Mr. Caswell, of the staff of the Bureau of Corporations, has so diligently worked for our benefit;

Therefore be it resolved, That a special vote of thanks be extended, and is hereby extended to him.

The motion was seconded and carried.

Mr. REICHMANN. Mr. Chairman, I move to adjourn.

The motion was seconded and carried; and, accordingly, at 11.10 a. m. the conference adjourned.

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